CITY OF EL PASO, TEXAS
AGENDA ITEM
DEPARTMENT HEAD'S SUMMARY FORM

DEPARTMENT: Mayor and Council

AGENDA DATE: March 17, 2020

CONTACT PERSON NAME AND PHONE NUMBER: Representative Cassandra Hernandez 212.0003
Representative Alexsandra Annello 212-0002

DISTRICT(S) AFFECTED: All

STRATEGIC GOAL:
Goal 7 - Enhance and Sustain El Paso's Infrastructure Network

SUBJECT:
APPROVE a resolution / ordinance / lease to do what? OR AUTHORIZE the City Manager to do what? Be descriptive of what we want Council to approve. Include $ amount if applicable.

Update, discussion and action on water and wastewater impact fees, to consider the process to adopt the water and wastewater maximum impact fee, to consider the amendment of land use assumptions and a capital improvement plan and the imposition of an impact fee, and to discuss the proposed ordinance amending land use assumptions, the capital improvements plan, and/or the impact fee.

Discussion and Action to review Chapter 15.22- Water and Wastewater Impact fee- Section: 15.22.180 - Updates to plans and revision of fees:
A. The city shall update the land use assumptions and capital improvements plan at least every five years, commencing from the date of adoption of such plans, and shall, if necessary, recalculate the impact fees based thereon in accordance with the procedures of V.T.C.A. Local Government Code Chapter 395 or in any successor statute.
B. The city may review its land use assumptions, impact fees, capital improvements plan and other factors more frequently than provided in Subsection A above to determine whether the land use assumptions and capital improvements plan should be updated and the impact fees recalculated accordingly.
C. After conducting the review required in Subsection A above, the city council determines that no change to the land use assumptions, capital improvements plan or impact fee is needed at the time of an update under Subsection A above, the city council may dispense with the update in accordance with V.T.C.A. Local Government Code § 395.0575.

BACKGROUND / DISCUSSION:
Discussion of the what, why, where, when, and how to enable Council to have reasonably complete description of the contemplated action. This should include attachment of bid tabulation, or ordinance or resolution if appropriate. What are the benefits to the City of this action? What are the citizen concerns?
Impact fee: means a charge or assessment imposed by a political subdivision against new development in order to generate revenue for funding or recouping the costs of capital improvements or facility expansions necessitated by and attributable to the new development.

The water and wastewater impact fee calculations are based on the incremental method. Under this method, new customers pay a fee representing their share of expansion related developmental costs of new facilities. The incremental method uses a 10-year capital improvement plan (CIP) that accounts for projects that will add future capacity. The impact fee is determined for the supply and treatment categories for water and treatment and collection categories for wastewater.

On January 22, 2019 City Council Meeting a public hearing was held to consider the amendment of land use assumptions and a capital improvements plan and the imposition of an impact fee, and to discuss the proposed ordinance amending land use assumptions, the capital improvements plan, and/or the impact fee. The hearing was closed with no action.

PRIOR COUNCIL ACTION:

Has the Council previously considered this item or a closely related one?

On December 21, 2018, the Water & Wastewater Impact Fees – 2018 Update was provided to members of City Council.

On December 18, 2018, City Council approved a resolution setting the public hearing date as January 22, 2019.

AMOUNT AND SOURCE OF FUNDING:

How will this item be funded? Has the item been budgeted? If so, identify funding source by account numbers and description of account. Does it require a budget transfer?

********************REQUIRED AUTHORIZATION*********************

DEPARTMENT HEAD:

_____

(If Department Head Summary Form is initiated by Purchasing, client department should sign also)

Chapter 15.22 - WATER AND WASTEWATER IMPACT FEES

Sections:

Footnotes:
*--- (**2**) ---*
***Editor's note—** Ord. No. 18130, § 3, adopted March 4, 2014, amended Ch. 15.22 in its entirety to read as herein set out. Former Ch. 15.22, §§ 15.22.010—15.22.190, pertained to similar subject matter, and derived from Ord. No. 17113, § 3, 5-12-2009. See the Ordinance List, and the Code Comparative Table and Disposition List, for subsequent amendatory legislation.*

15.22.010 - Short title.

This chapter and its subsequent codification shall be known and may be cited as the City of El Paso Impact Fee Ordinance.

15.22.020 - Purpose.

The purpose of this chapter is to assure the provision of adequate water and wastewater to serve new development in the city by requiring each new development to contribute payments towards its share of the costs of the facilities necessitated by and attributable to the new development.

15.22.030 - Authority.

This chapter is adopted pursuant to V.T.C.A. Local Government Code ch. 395. The provisions of this chapter shall not be construed to limit the power of the city to utilize other methods authorized under state law or pursuant to other city powers to accomplish the purposes set forth herein, either in substitution or in conjunction with this chapter.

15.22.040 - Definitions.

The following definitions apply to this chapter:

A. *Advisory committee.* The capital improvements advisory committee on water and wastewater impact fees designated and appointed by the city council in accordance with V.T.C.A. Local Government Code Chapter 395.

B. *Capital improvement.* A water supply, treatment and distribution facilities or a wastewater collection and treatment facilities, with a life expectancy of three or more years, to be owned and operated by or on behalf of the city whether or not located in the service area.

C. *Capital improvements plan.* The plan adopted by the city, as may be amended from time to time, that identifies water and wastewater capital improvements or facility

expansions and their associated costs which are necessitated by and attributable to new development and will be financed in whole or in part through water and wastewater impact fees imposed under this chapter.

D. *Facility expansion.* The expansion of the capacity of an existing facility that serves the same function as an otherwise necessary new capital improvement, in order that the existing facility may serve new development. The term does not include the repair, maintenance, modernization, or expansion of an existing facility to better serve existing development.

E. *Impact fee.* A charge or assessment imposed by the city against new development in order to generate revenue for funding or recouping the costs of capital improvements or facility expansions necessitated by and attributable to the new development. The term includes amortized charges, lump-sum charges, capital recovery fees, contributions in aid of construction, and any other fee that functions as described by this definition to fund capital improvements in the capital improvements plan. The term does not include:

   1. Dedication of land for public parks or payment in lieu of the dedication to serve park needs;
   2. Dedication of rights-of-way or easements or construction or dedication of on-site or off-site water distribution, wastewater collection or drainage facilities, or streets, sidewalks, or curbs if the dedication or construction is required by a valid ordinance and is necessitated by and attributable to the new development;
   3. Lot or acreage fees to be placed in trust funds for the purpose of reimbursing developers for oversizing or constructing water or sewer mains or lines; or
   4. Other pro rata fees for reimbursement of water or wastewater mains or lines extended by the city.

However, an item included in the capital improvements plan may not be required to be constructed except in accordance with V.T.C.A. Local Government Code § 395.019(2), and an owner may not be required to construct or dedicate facilities and to pay impact fees for those facilities.

F. *Land use assumptions.* A description of the service area and projections of changes in land uses, densities, intensities, and population in the service area over at least a ten-year period as may be amended.

G. *New development.* The subdivision of land; the construction, reconstruction, redevelopment, conversion, structural alteration, relocation, or enlargement of any structure; or any use or extension of the use of land; any of which increases the number of service units and is located within a service area.

H. *Service area.* The area within the corporate boundaries or extraterritorial jurisdiction, as

determined under V.T.C.A. Local Government Code Chapter 42, of the city to be served by the capital improvements or facilities expansions specified in the capital improvements plan. The service area does include all or part of the land within the city and its extraterritorial jurisdiction.

I. *Service unit.* A standardized measure of consumption, use, generation, or discharge attributable to an individual unit of development calculated in accordance with generally accepted engineering or planning standards and based on historical data and trends applicable to the city subdivision in which the individual unit of development is located during the previous ten years. For purposes of compliance with the impact fee statute and this chapter, a service unit represents the water and wastewater flows in gallons per day (gpd) for a single family residential or equivalent unit with a water meter smaller than one inch.

15.22.050 - Administration and accounting.

A. The El Paso Water Utilities shall administer the provisions of this chapter. The El Paso Water Utilities shall establish adequate financial and accounting controls to ensure that impact fees disbursed from an account established under this section are utilized solely for the purpose authorized under V.T.C.A. Local Government Code Chapter 395.

B. *Accounts and funds.* All funds collected shall be deposited in interest-bearing accounts clearly identifying the category of capital improvements or facility expansions within the service area for which the impact fee was adopted. Interest earned on impact fee accounts are considered funds of the account on which it is earned. Impact fee funds, to include interest generated from impact fee accounts, may be spent only for the purposes for which the impact fee was imposed as shown by the capital improvements plan and as otherwise authorized by V.T.C.A. Local Government Code Chapter 395. The records of the accounts into which impact fees are deposited shall be open for public inspection and copying during ordinary business hours.

C. The El Paso Water Utilities shall maintain and keep adequate financial records for each account to show the source and disbursement of all revenues, which shall account for all monies received and ensure that the disbursement of funds from each account shall be used solely and exclusive for the purposes for which the impact fee was imposed as shown by the capital improvements plan and as otherwise authorized by V.T.C.A. Local Government Code Chapter 395.

D. The El Paso Water Utilities shall ensure that any fee collected under the impact fee ordinance is expended within a reasonable period of time but not to exceed ten years from the date the fee is deposited into the impact fee account.

15.22.060 - Land use assumptions and service area.

The land use assumptions (LUA) and service areas are those adopted by the El Paso city council on February 18, 2014.

15.22.070 - Capital improvements plan.

The capital improvements plan (CIP) is the plan adopted by the El Paso city council on February 18, 2014.

15.22.080 - Impact fee service areas.

The impact fee service areas are those adopted by the El Paso city council on March 24, 2009 as reflected in Appendix A. Three separate service areas have been established within the City of El Paso and its extraterritorial jurisdiction to be served by the capital improvements or facilities expansions specified in the capital improvements plan. Those service areas are the Westside Service Area, the Eastside Service Area, and the Northeast Service Area.

15.22.090 - Impact fee schedules.

Appendix B contains the City of El Paso Impact Fee Assessment Schedule. For purposes of compliance with the impact fee statute, the City of El Paso has determined that a service unit represents the water and wastewater flows in gallons per day (gpd) for a single family residential or equivalent unit with a water meter smaller than one inch.

15.22.100 - Maximum fee and actual fee to be assessed.

The maximum allowable impact fee per service unit was calculated in accordance with V.T.C.A. Local Government Code § 395.015. In accordance with V.T.C.A. Local Government Code § 395.014(7), the city has awarded a credit based on the portion of the utility service revenues generated by new service units during the program period that is used for the payment of improvements, including the payment of debt, that are included in the capital improvements plan. Ad valorem taxes will not be used for the payment of improvements contained in the capital improvements plan.

The impact fee to be assessed is the impact fee adopted by the city council.

WATER IMPACT FEE PER SERVICE UNIT

	Impact Fee (Before Credit)	Maximum Allowable Impact Fee	Impact Fee to be Assessed
Service Area			

Northeast	$3,561.00	$3,145.00	$1,178.00
Westside	$1,044.00	$922.00	$659.00
Eastside	$2,809.00	$2,481.00	$697.00

WASTEWATER IMPACT FEE PER SERVICE UNIT

	Impact Fee (Before Credit)	Maximum Allowable Impact Fee	Impact Fee to be Assessed
Service Area			
Northeast	$538.00	$429.00	$291.00
Westside	$1,711.00	$1,364.00	$927.00
Eastside	$1,698.00	$1,354.00	$920.00

15.22.110 - Time of assessment.

A. An "assessment" means a determination of the amount of the impact fee in effect on the date or occurrence provided in this section and is the maximum amount that can be charged per service unit of such development. No specific act by the city is required.

B. For new development which is platted, or re-platted and there is an increase in the number of service units in the development, after the adoption of an impact fee, impact fees shall be assessed on the incremental increase in service units in the development before or at the time of recordation of a subdivision plat or replat in the official records of the county clerk of the county in which the tract is located.

C. For land on which new development occurs or is proposed to occur without platting, impact fees shall be assessed at the time an application for an individual meter connection to the city's water or wastewater system is filed.

15.22.120 - Re-assessment.

Following the initial assessment of an impact fee, the amount of the impact fee per service unit for that development cannot be increased unless the approved final plat expires or lapses under the applicable ordinance or law, and service units increase or meter size is increased.

15.22.130 - Time of collection.

A. For new development, which is platted in accordance with the provisions of Title 19 before the adoption of an impact fee, an impact fee may not be collected on any service unit for which a valid building permit is issued within one year after the date of adoption of the impact fee ordinance.

B. For new development which is platted, or re-platted and there is an increase in the number of service units after the adoption of impact fee ordinance and if water and/or wastewater capacity is currently available:

   1. For land platted within the corporate boundaries of the city, impact fees shall be collected at the time a building permit is issued.
   2. For land platted outside the corporate boundaries of the city, impact fees shall be collected at the time an application for an individual meter connection to the city's water or wastewater system is filed.
   3. For land on which new development occurs or is proposed to occur without platting, impact fees shall be collected at the time an application is filed for an individual meter connection to the city's water or wastewater system.
   4. If the city fails to collect the fee at the time specified above, the city has the option of collecting the fee at the time of connection to the water or wastewater system.

C. For new development which is platted, or re-platted and there is an increase in the number of service units, after the adoption of an impact fee and if water and wastewater capacity is not currently available:

   1. Impact fees shall be collected, except as otherwise provided in this chapter, only if the collection is made to pay for a capital improvement or facility expansion that has been identified in the capital improvements plan and the city commits to commence construction of the identified capital improvement within two years, under duly awarded and executed contracts or commitments of staff time covering substantially all of the work required to provide service, and to have the service available within a reasonable period of time considering the type of capital improvement or facility expansion to be constructed, but in no event longer than five years; or
   2. The city has entered into an agreement that the owner of a new development may construct or finance the capital improvements or facility expansions and agrees that the costs incurred or funds advanced will be credited against the impact fees otherwise due from the new development impact fees shall be collected.

15.22.140 - Impact fee as condition of building permit approval or meter connection.

New development occurring in any of the defined service areas shall not be connected to the city's water or wastewater system without payment of an impact fee in accordance with the provisions of this chapter. No building permit shall be issued without payment of an impact fee in accordance with the provisions of this chapter. If impact fees have not been collected in accordance with the provision of the impact fee ordinance and the development has been connected to the water and/or wastewater system, the El Paso Water Utilities may disconnect the service per their "Rules and Regulations" until such time as the impact fees are paid.

15.22.145 - Affordability reduction or waiver.

Notwithstanding Section 15.20.130 of this chapter, the city manager or designee shall administratively reduce or waive an impact fee for a service unit if the service unit once constructed, qualifies as affordable housing under 42 U.S.C. Section 12745, as amended. In addition to meeting the requirements of 42 U.S.C. Section 12745, the waiver or reduction must comply with the city's adopted fee waiver program established under the provisions of this section and will be subject to an affordability period established by the city and enforced by agreement, restrictive covenant, lien, or other binding obligation, as approved by the city attorney. However, if affordable housing as defined by 42 U.S.C. Section 12745, is not constructed, the city may reverse its decision to waive or reduce the impact fee, and may assess and collect an impact fee at any time during the development approval or building process or after the building process if an impact fee was not already assessed.

15.22.150 - Refund of fees.

A. Refund if service denied or service not available.
    1. On the request of an owner of the property on which an impact fee has been paid, the city shall refund the impact fee paid if:
        a. Existing facilities are available and service is denied; or
        b. The city has, after collecting the impact fee when service was not available, failed to commence construction within two years; or
        c. Service is not available within a reasonable period considering the type of capital improvement or facility expansion to be constructed, but in no event later than five years from the date of payment of the impact fee.
    2. A request for a refund shall be submitted to the El Paso Water Utilities on a form provided for by the El Paso Water Utilities for such purpose.
    3. Any refund shall bear interest calculated from the date of collection to the date of refund at the statutory rate as set forth in V.T.C.A. Finance Code § 302.002, or its successor statute.

B. Refund if funds not spent.

1. The city shall refund any impact fee or part of it that is not spent as authorized by this chapter within ten years after the date of payment.
2. All refunds shall be made to the record owner of the property at the time the refund is paid. However, if the impact fees were paid by another political subdivision or governmental entity, payment shall be made to the political subdivision or governmental entity.
3. Any refund shall bear interest calculated from the date of collection to the date of refund at the statutory rate as set forth in V.T.C.A. Finance Code § 302.002, or its successor statute.
4. For purposes of this section, an impact fee collected shall be considered expended if the total expenditures for capital improvements or facility expansions within a service area within ten years following the date of payment of the impact fee, equal or exceed the total impact fees collected within the service area for such improvements or facility expansions during such period.

15.22.160 - Appeal process.

A. The property owner or applicant for a new development may appeal the following administrative decisions to the city manager or designee:

1. The applicability of an impact fee to the development or structure;
2. The amount of the impact fee assessed or collected;
3. Amount of a refund due.

15.22.170 - Certification of compliance.

A. The city shall submit a written certification verifying compliance with this chapter to the attorney general each year not later than the last day of the city's fiscal year.

B. The certification must be signed by the mayor and include a statement that reads substantially similar to the following: "This statement certifies compliance with Chapter 395, Local Government Code."

15.22.180 - Updates to plans and revision of fees.

A. The city shall update the land use assumptions and capital improvements plan at least every five years, commencing from the date of adoption of such plans, and shall, if necessary, recalculate the impact fees based thereon in accordance with the procedures of V.T.C.A. Local Government Code Chapter 395 or in any successor statute.

B. The city may review its land use assumptions, impact fees, capital improvements plan and other factors more frequently than provided in Subsection A above to determine whether the

land use assumptions and capital improvements plan should be updated and the impact fees recalculated accordingly.

C. After conducting the review required in Subsection A above, the city council determines that no change to the land use assumptions, capital improvements plan or impact fee is needed at the time of an update under Subsection A above, the city council may dispense with the update in accordance with V.T.C.A. Local Government Code § 395.0575.

15.22.190 - Functions of advisory committee.

The capital improvements advisory committee shall have those duties and responsibilities as established under Chapter 2.80 of the El Paso City Code and V.T.C.A. Local Government Code Chapter 395.

APPENDIX A
SERVICE AREAS

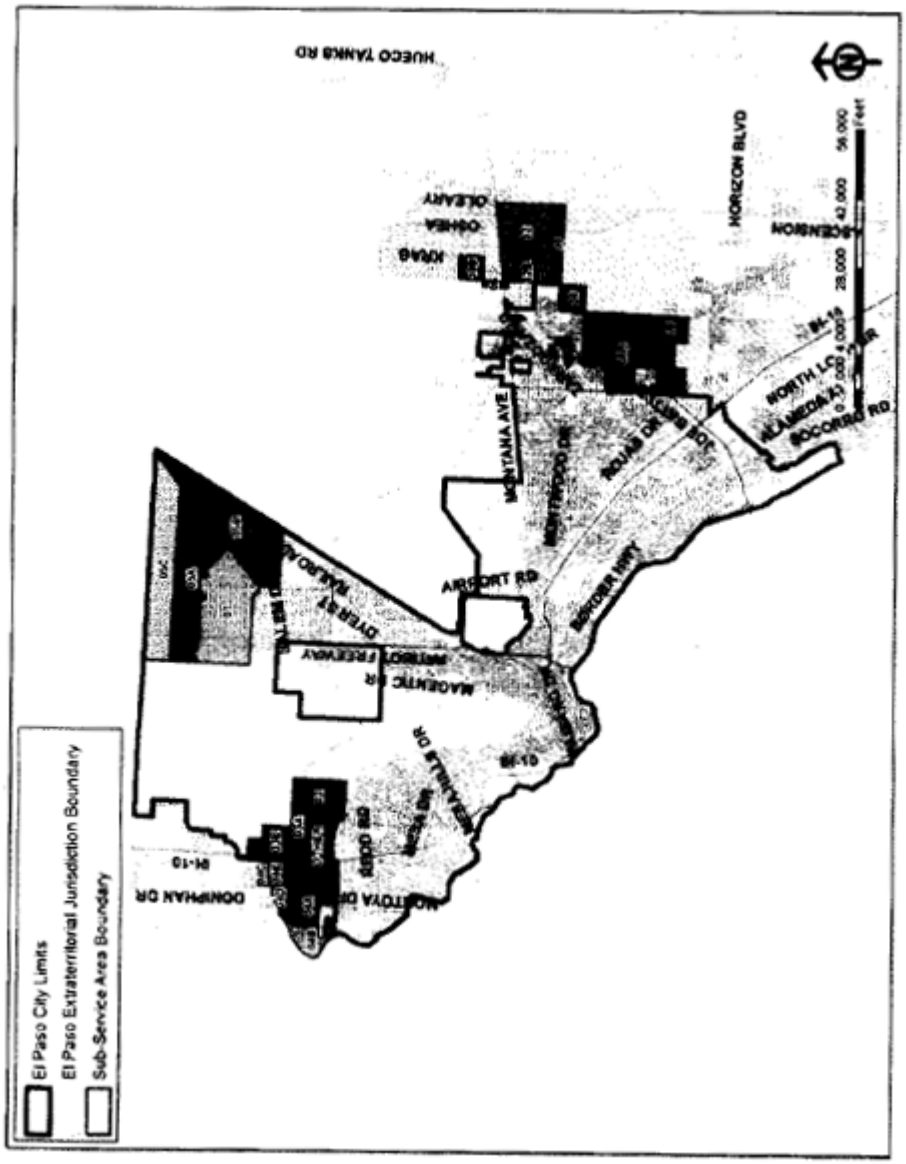

Figure A-1. City of El Paso Water and Sewer Impact Fee Service Area

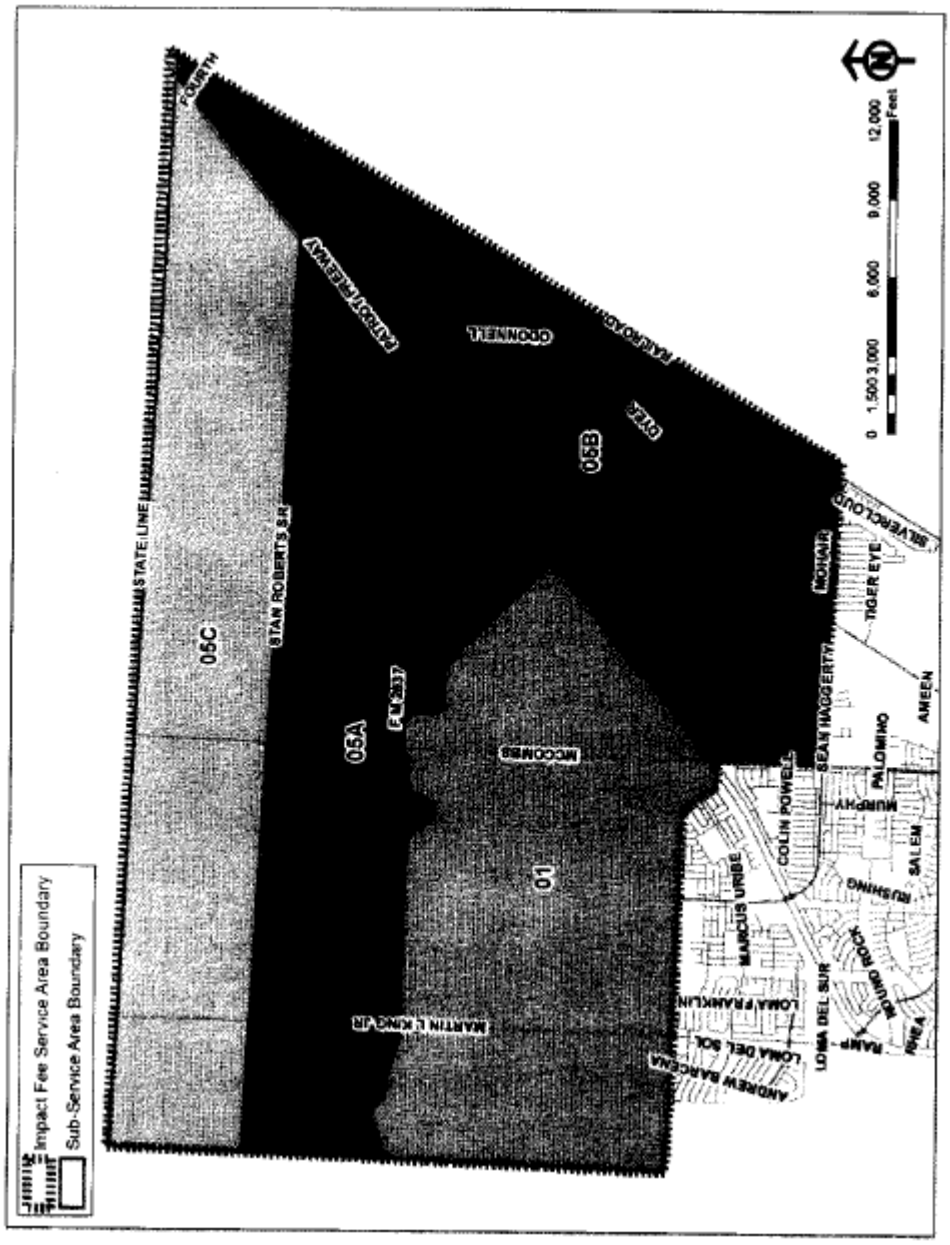

Figure A-2. Northeast Water and Sewer Impact Fee Service Area

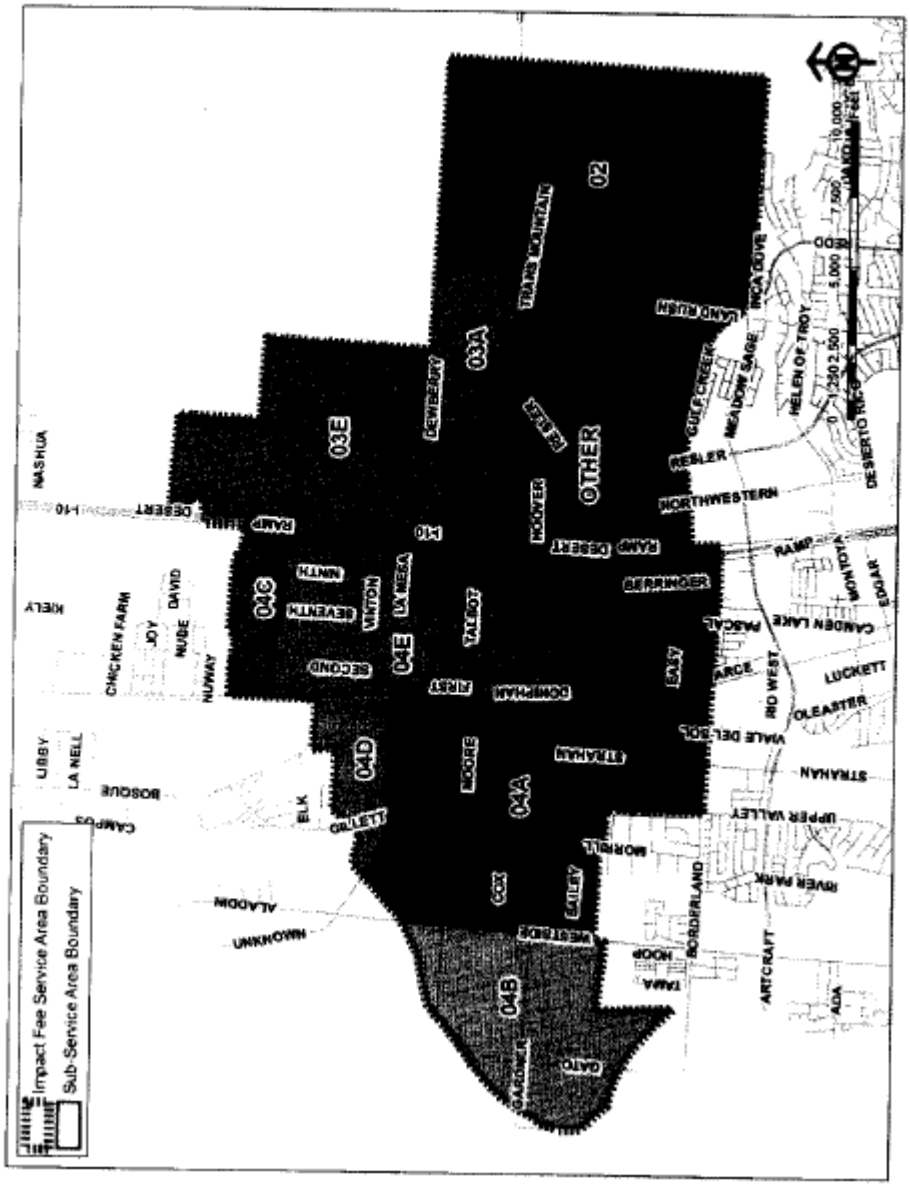

Figure A-3. Westside Water and Sewer Impact Fee Service Area

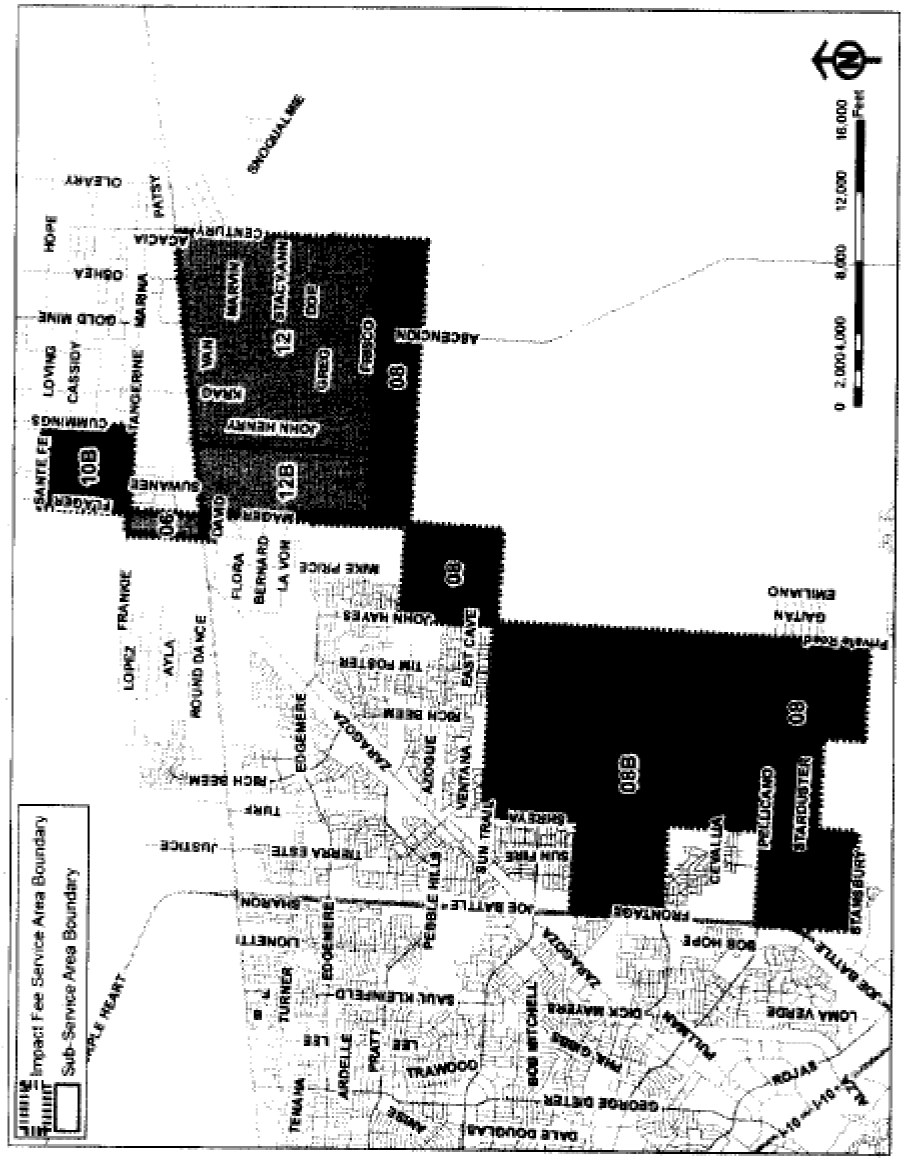

Figure A-4. Eastside Water and Sewer Impact Fee Service Area

APPENDIX B

IMPACT FEE ASSESSMENT SCHEDULES

Northeast Service Area			
Meter Size	**Meter Capacity Ratio**	**Water***	**Wastewater**
Less than 1 inch	1.00	$ 1,178.00	$ 291.00
1 inch	1.67	$ 1,967.00	$ 486.00
1½ inch	3.33	$ 3,921.00	$ 969.00

2 inch	5.33	$ 6,276.00	$ 1,551.00
3 inch	10.00	$ 11,775.00	$ 2,910.00
4 inch	16.67	$ 19,629.00	$ 4,851.00
6 inch	33.33	$ 39,246.00	$ 9,699.00
8 inch	53.33	$ 62,796.00	$15,519.00
10 inch	76.67	$ 90,279.00	$22,311.00
12 inch	143.33	$168,771.00	$41,709.00

**** Fees do not apply to water meter or connections made for standby fire protection service.***

Westside Service Area			
Meter Size	**Meter Capacity Ratio**	**Water***	**Wastewater**
Less than 1 inch	1.00	$ 659.00	$ 927.00
1 inch	1.67	$ 1,101.00	$ 1,548.00
1½ inch	3.33	$ 2,195.00	$ 3,087.00
2 inch	5.33	$ 3,514.00	$ 4,941.00
3 inch	10.00	$ 6,593.00	$ 9,270.00
4 inch	16.67	$10,990.00	$ 15,453.00
6 inch	33.33	$21,973.00	$ 30,897.00
8 inch	53.33	$35,158.00	$ 49,437.00

10 inch	76.67	$50,545.00	$ 71,073.00
12 inch	143.33	$94,490.00	$132,867.00

**** Fees do not apply to water meter or connections made for standby fire protection service.***

Eastside Service Area			
Meter Size	**Meter Capacity Ratio**	**Water***	**Wastewater**
Less than 1 inch	1.00	$ 697.00	$ 920.00
1 inch	1.67	$ 1,163.00	$ 1,537.00
1½ inch	3.33	$ 2,321.00	$ 3,065.00
2 inch	5.33	$ 3,714.00	$ 4,905.00
3 inch	10.00	$ 6,968.00	$ 9,203.00
4 inch	16.67	$11,615.00	$15,341.00
6 inch	33.33	$23,223.00	$30,672.00
8 inch	53.33	$37,158.00	$49,077.00
10 inch	76.67	$40,064.00	$52,916.00
12 inch	143.33	$74,899.00	$98,924.00

**** Fees do not apply to water meter or connections made for standby fire protection service.***

LOCAL GOVERNMENT CODE

TITLE 12. PLANNING AND DEVELOPMENT

SUBTITLE C. PLANNING AND DEVELOPMENT PROVISIONS APPLYING TO MORE THAN ONE TYPE OF LOCAL GOVERNMENT

CHAPTER 395. FINANCING CAPITAL IMPROVEMENTS REQUIRED BY NEW DEVELOPMENT IN MUNICIPALITIES, COUNTIES, AND CERTAIN OTHER LOCAL GOVERNMENTS

SUBCHAPTER A. GENERAL PROVISIONS

Sec. 395.0575. DETERMINATION THAT NO UPDATE OF LAND USE ASSUMPTIONS, CAPITAL IMPROVEMENTS PLAN OR IMPACT FEES IS NEEDED.

(a) If, at the time an update under Section 395.052 is required, the governing body determines that no change to the land use assumptions, capital improvements plan, or impact fee is needed, it may, as an alternative to the updating requirements of Sections 395.052-395.057, do the following:

(1) The governing body of the political subdivision shall, upon determining that an update is unnecessary and 60 days before publishing the final notice under this section, send notice of its determination not to update the land use assumptions, capital improvements plan, and impact fee by certified mail to any person who has, within two years preceding the date that the final notice of this matter is to be published, give written notice by certified or registered mail to the municipal secretary or other designated official of the political subdivision requesting notice of hearings related to impact fees. The notice must contain the information in Subsections (b)(2)-(5).

(2) The political subdivision shall publish notice of its determination once a week for three consecutive weeks in one or more newspapers with general circulation in each county in which the political subdivision lies. However, a river

authority that is authorized elsewhere by state law to charge fees that function as impact fees may publish the required newspaper notice only in each county in which the service area lies. The notice of public hearing may not be in the part of the paper in which legal notices and classified ads appear and may not be smaller than one-quarter page of a standard-size or tabloid-size newspaper, and the headline on the notice must be in 18-point or larger type.

(b) The notice must contain the following:

(1) a headline to read as follows:

"NOTICE OF DETERMINATION NOT TO UPDATE

LAND USE ASSUMPTIONS, CAPITAL IMPROVEMENTS

PLAN, OR IMPACT FEES";

(2) a statement that the governing body of the political subdivision has determined that no change to the land use assumptions, capital improvements plan, or impact fee is necessary;

(3) an easily understandable description and a map of the service area in which the updating has been determined to be unnecessary;

(4) a statement that if, within a specified date, which date shall be at least 60 days after publication of the first notice, a person makes a written request to the designated official of the political subdivision requesting that the land use assumptions, capital improvements plan, or impact fee be updated, the governing body must comply with the request by following the requirements of Sections 395.052-395.057; and

(5) a statement identifying the name and mailing address of the official of the political subdivision to whom a request for an update should be sent.

(c) The advisory committee shall file its written comments on the need for updating the land use assumptions, capital improvements plans, and impact fee before the fifth business day

before the earliest notice of the government's decision that no update is necessary is mailed or published.

(d) If, by the date specified in Subsection (b)(4), a person requests in writing that the land use assumptions, capital improvements plan, or impact fee be updated, the governing body shall cause an update of the land use assumptions and capital improvements plan to be prepared in accordance with Sections 395.052-395.057.

(e) An ordinance, order, or resolution determining the need for updating land use assumptions, a capital improvements plan, or an impact fee may not be adopted as an emergency measure.

Added by Acts 1989, 71st Leg., ch. 566, Sec. 1(d), eff. Aug. 28, 1989.

RAFTELIS

Water and Wastewater Impact Fees- 2018 Update

Water and Wastewater Impact Fee Study

December 20, 2018

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December 20, 2018

Ms. Marcela Navarrete, CPA
Vice President Strategic, Financial, and Management Services
El Paso Water
1154 Hawkins Blvd
El Paso, Texas 79961-0001

Subject: Water and Wastewater Impact Fee Draft Report

Dear Ms. Navarrete,

Raftelis is pleased to provide this *Water and Wastewater Impact Fee Report (*Report*)* for the consideration by the El Paso Water Utilities-Public Service Board (EPWater) and the City of El Paso (City). Our draft Report documents the steps we took to develop the 2019 water and wastewater impact fees developed in compliance with Texas Statues, Chapter 395. This Report is subject to changed based on review and input from the City Council and City's Capital Improvement Advisory Committee (CIAC).

We want to especially thank Ms. Adriana Castillo, EPWater Engineering Division Manager, for her assistance throughout this project in developing the capital improvement plan.

It has been a pleasure working with you, and we thank you and your staff for the support provided during this study.

Sincerely,

Richard D. Giardina, CPA
Executive Vice President

5619 DTC Parkway, Suite 850
Greenwood Village, CO 80111

www.raftelis.com

Table of Contents

List of Tables

List of Attachments

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Project Overview

Background of the Study

EPWater engaged Raftelis to update the existing Water and Wastewater Impact Fees in compliance with State law-Texas Statutes, Local Government Code, Chapter 395 (State Impact Fee Statues). This report documents the 2019 update of the water and wastewater impact fees and replaces the previous Water and Wastewater Impact Fees-2014 Update. During the last impact fee update process, it was determined that the approved 2009 impact fee amounts would not be updated; would not be changed.

Consistent with the 2014 update of impact fees, this update determined fees for the same three areas as the previous study (Northeast, Eastside, and Westside). Listed below are the designated service areas.

Northeast Area

- 01- Northeast Master Plan
- 05A- Northwest Fort Bliss A
- 05B- Northwest Fort Bliss B
- 05C- Northwest Fort Bliss C

Westside Area

- 02- Westside MP
- 03A- Northwest Vinton A
- 03E- I-10375 MP
- 04A- Northwest Artcraft A
- 04B- Northwest Artcraft B
- 04C- Northwest Artcraft C
- 04D- Northwest Artcraft D
- 04E- Canutillo
- 02B- Other

Eastside Area

- 08B- Eastside
- 12- South Montana
- 12B- South Montana B
- 08- East Battle

The calculated water and wastewater impact fees may only be charged to the aforementioned service areas. Any development outside of the service areas will not be charged an impact fee.

Maps displaying the EPWater service area are attached in Appendix A.

Calculations and results in this report are based on numerical analysis using rounded figures. However, the analysis itself uses figures carried to their ultimate decimal places. Therefore, the sums and products generated may

not exactly equal the sum or product if the reader replicates the calculation with the factors shown in the report (due to rounding).

Impact Fee Methodology

The water and wastewater impact fee calculations are based on the incremental method. Under this method, new customers pay a fee representing their share of expansion related developmental costs of new facilities. The incremental method uses a 10-year capital improvement plan (CIP) that accounts for projects that will add future capacity. The impact fee is determined for the supply and treatment categories for water and treatment and collection categories for wastewater.

Each CIP project is allocated to its respective category: reservoirs to water distribution, force mains to wastewater collection, wastewater lines to wastewater collection, etc. The project's costs and service units are summed by category. The total categories' costs are then divided by the categories' total service units to arrive at a per unit cost. For example, the total costs of the distribution pumping equipment category are divided by the total capacity added by the distribution pumping equipment to arrive at per unit amount. This amount is added to the water distribution portion of the impact fee. A service unit represents the water and wastewater flows in gallons per day (gpd) for a single family residential unit.

Land Use Assumptions and Service Unit Characteristics

Impact fees in Texas must meet the requirements set by the Texas Statutes, Local Government Code, Chapter 395. In compliance with Chapter 395 land use assumptions, see Attachment B, are used to arrive at the residential service units (SUs) and population per residential service as shown in table 1. The average persons per service unit used is 3.13 persons per household based on the County average as shown in the *2019 Land Use Assumptions Technical Report*. The Land Use Assumption Update uses data from master plans prepared by or on behalf of the City of El Paso, and from other sources used in projecting water and wastewater service demands.

Table 1 - Land Use Assumptions

Service Area	Total Residential Service Units (Build-Out)	Average Household Size Persons/SU	Population per Service Area
Northeast			
01	18,365	3.13	57,482
05A	16,418	3.13	51,387
05B	13,054	3.13	40,860
05C	9,881	3.13	30,927
Westside			
02	5,331	3.13	16,686
03A	353	3.13	1,105
03E	2,458	3.13	7,693
04A	5,712	3.13	17,880
04B	3,055	3.13	9,562
04C	401	3.13	1,254
04D	762	3.13	2,384
04E	2,096	3.13	6,560
02B	3,183	3.13	9,961
Eastside			
08B	16,650	3.13	52,113
12	5,013	3.13	15,692
12B	2,685	3.13	8,404
08	8,037	3.13	25,157

Table 1 shows the land use and demographic assumptions used to determine the residential service units and future capacity requirements. These assumptions go into calculating the water and wastewater flow rates that will be used throughout the analysis/model.

Using the Table 1 data and assumptions regarding commercial and industrial use, the water and wastewater flow rates are calculated in Table 2. In this study we use 3.5 persons per Service Unit to define the flow rates, this rate is higher than then the 3.13 persons per Service Unit in Table 1 due to the additional commercial and industrial usage that must be accounted for. These numbers have not changed since the 2014 update.

Table 2 - Equivalent Service Unit Flows

Description	Water	Wastewater
Average Usage Capita (gallons per day-gpd)	115	70
Ratio of Maximum Day Demand to Average Day Demand	1.71[1]	1.39
Maximum Day Demand per Capita (gpd)	197	98
Persons per Service Unit	3.50	3.50
Flows per Equivalent Service Unit (gpd)[2]	688	341

1. **Elevated water storage capacity is calculated based on 50% of Maximum Day Demand.**

2. **Equivalent service unit flows represent flow to a residential, commercial, or industrial user with a water meter size less than 1-inch.**

The flows per service unit are 688 gpd for water and 341 gpd for wastewater. These flow rates are used to calculate the number of facility service units in Attachments E and F.

10-Year Population and Service Unit Projections

It is difficult to forecast population growth and developmental growth accurately. The growth directly influences the timeline for when exactly the additional capacity must be realized. This assumption must be made when calculating an impact fee.

Table 3 displays the population and development units for the water and wastewater impact fee areas under consideration.

Table 3 - 2029 Population and Service Units

Service Area	Developable Acres	Population	Residential Service Units	Non-Residential Service Unit Equivalents	Total Service Units
Northeast	2,197	47,866	15,293	6,368	21,661
Westside	1,238	32,558	10,402	9,172	19,574
Eastside	3,579	56,056	17,909	6,995	24,904
Total	7,014	136,480	43,604	22,535	66,139

Proposed Capital Improvement Facilities

In compliance with the State Impact Fee Statues, proposed capital improvements were prepared by Adriana Castillo, P.E., with the EPWater. The capital projects include facilities required by new development in the next ten years. Descriptions of the proposed capital improvement projects are included as Attachment C to this report. The list of CIP projects with estimated costs for each, are included in Attachment D. Attachment E to this report shows the CIP capital, financing costs, capacity, facility service units, unit cost of capacity, and weighted average cost of capacity for each service area used in the impact fee calculation.

Maximum Impact Fee Calculation

The capital projects noted in the CIP plan add capacity for the 10-year period and beyond. To account for this growth Raftelis allocates the costs of the growth-related CIP to the projected development and to the total number

of new service units that may be served by the new capacity additions. The 10-year CIP is adding significant capacity, but this capacity will still not be sufficient to serve the projected ultimate built out capacity of the indicated service areas.

Raftelis used the capacities provided by EPWater to estimate capacity added by each capital project. This assumes that all units will be served by the additional capacity regardless of when the growth occurs.

The LUA Update projects new service units for the next ten years (Table 4) to be served by EPWater planned capacity additions as reported in the 10-year CIP. In compliance with the State Impact Fee Statutes, the maximum impact fee per service unit is calculated by dividing the costs of the portion of the CIP required by and attributable to projected new service units by the total projected new service units served by the CIP.

Attachment F provides a summary of the capital costs, capital service units, financing costs, percentage of CIP needed through 2029, and the maximum impact fee for each service area. The model assumes a 35% debt funding rate for all capital projects at an interest rate of 5% and a 20-year amortization or repayment period. The impact fee calculations include the net present value of the interest and transaction costs of the loans to arrive at a per unit impact fee value. Table 4 summarizes the maximum impact fee by service area.

Table 4 - Maximum Impact Fee by Service Area

Service Area	Projected New Service Units (through 2029)	Maximum Impact Fee per Service Unit
Northeast		
Water	21,661	$3,437
Wastewater	21,661	1,271
Total		$4,708
Westside		
Water	19,574	$1,272
Wastewater	19,574	929
Total		$2,201
Eastside		
Water	24,904	$4,473
Wastewater	24,904	2,286
Total		$6,758

Impact Fee Credit Calculation

The State Impact Fee Statutes require the determination of an "impact fee credit" for the portion of utility service revenues or ad valorem taxes generated by the new service units during the 10-year period. There are two ways to calculate this credit:

- A credit against the impact fee for the portion of ad valorem tax and utility service revenues generated by new service units during the program period that is used for the payment of capital improvements, including the payment of debt, that are included in the capital improvements plan; or

- A credit equal to 50 percent of the total projected cost of implementing the capital improvements plan.

The City of El Paso does not use ad valorem taxes to assist in paying for utility projects, so the ad valorem language does not apply. A credit recognizing the utility service revenues generated by new service units during the capital program period that is used for the payment of capital improvements, including the payment of debt, that are included in the capital improvements plan is warranted and is what has been used since EPWater first adopted impact fees and is what has been used again in this update.

The calculated credit represents the approximation of the utility service revenue projected to be provided by the new service units that may be used to retire debt issued to fund the CIP upon which the impact fee is based. This rate credit to the impact fee prevents new service units from the potential of double counting or paying twice for utility capital improvements and related debt.

The impact fee credit was determined to be 12.8% for water and 17.0% for wastewater. Attachment G provides the detail for the calculation of the debt service credits. Table 5 illustrates the impact fee with the calculated credit. The credit is applied as percentage of the maximum Impact Fee.

Table 5 - Impact Fee Credits per Service Unit Equivalent

	Water			Wastewater			Total
Service Area	**Maximum Impact Fee**	**Impact Fee Credit (12.8%)**	**Net Impact Fee**	**Maximum Impact Fee**	**Impact Fee Credit (17%)**	**Net Impact Fee**	**Net Impact Fee**
Northeast	**$3,437**	**($439)**	**$2,998**	**$1,271**	**($216)**	**$1,055**	**$4,053**
Westside	**$1,272**	**($163)**	**$1,109**	**$929**	**($158)**	**$771**	**$1,880**
Eastside	**$4,473**	**($572)**	**$3,901**	**$2,286**	**($389)**	**$1,897**	**$5,798**

The impact fee credit is calculated at a system-wide level to account for the system-wide collection of revenues. The impact fee credits are then applied uniformly across all meter sizes.

Impact Fee Assessment Schedule

The impact fee assessment schedule follows established guidelines in "scaling up" or assessing the impact fee to recognize the greater demands placed on the system from larger connections. As stated above, the incremental method is used to calculate the impact fee for a ¾ inch meter or for an equivalent residential unit. For meters ¾ inch and larger the American Water Works Association (AWWA) standard ratios are used. These guidelines define the ¾ inch meter as one unit, and all other meters as a multiple of the ¾ inch meter. These ratios are based on the maximum flow capacities for the various meters. Table 6 displays the Northeast service area impact fees calculated according to AWWA standards; the resulting "Meter Capacity Ratio".

Table 6 - Northeast Water and Wastewater Impact Fee Assessment Schedule (Net Fee after Credit)

Meter Size	Meter Capacity Ratio	Water	Wastewater	Total
Less than 1-Inch	1.00	$2,998	$1,055	$4,053
1-Inch	1.67	5,007	1,762	6,769
11/2-Inch	3.33	9,983	3,513	13,496
2-Inch	5.33	15,979	5,623	21,602
3-Inch	10.00	29,980	10,550	40,530
4-Inch	16.67	49,977	17,587	67,564
6-Inch	33.33	99,923	35,163	135,086
8-Inch	53.33	159,883	56,263	216,146

Attachment H provides a schedule for all impact fee service areas. Tables 7-9 compare the current and proposed water, wastewater, and total impact fees for each service area. It should be noted that the current fees are those adopted in 2009 by the El Paso City Council (these fees were not updated in the 2014 Update). This in and of itself is a material reason the proposed fees are so much greater than the current fees as shown in Tables 7-9.

Table 7 - Northeast Impact Fee Comparison (Net Fee after Credit)

Meter Size	Water		Wastewater		Total		Change in Total Fee	
	Current	Proposed	Current	Proposed	Current	Proposed	$	%
Less than 1-Inch	$1,178	$2,998	$291	$1,055	$1,469	$4,053	$2,584	176%
1-Inch	$1,967	5,007	$486	1,762	$2,453	6,769	$4,316	176%
$1_{1/2}$-Inch	$3,921	9,983	$969	3,513	$4,890	13,496	$8,606	176%
2-Inch	$6,276	15,979	$1,551	5,623	$7,827	21,602	$13,775	176%
3-Inch	$11,775	29,980	$2,910	10,550	$14,685	40,530	$25,845	176%
4-Inch	$19,629	49,977	$4,851	17,587	$24,480	67,564	$43,084	176%
6-Inch	$39,246	99,923	$9,699	35,163	$48,945	135,086	$86,141	176%
8-Inch	$62,796	159,883	$15,519	56,263	$78,315	216,146	$137,831	176%

Table 8 - Westside Impact Fee Comparison Schedule (Net Fee after Credit)

Meter Size	Water		Wastewater		Total		Change in Total Fee	
	Current	Proposed	Current	Proposed	Current	Proposed	$	%
Less than 1-Inch	$659	$1,109	$927	$771	$1,586	$1,880	$294	19%
1-Inch	$1,101	1,852	$1,548	1,288	$2,649	3,140	$491	19%
$1_{1/2}$-Inch	$2,195	3,693	$3,087	2,567	$5,282	6,260	$978	19%
2-Inch	$3,514	5,911	$4,941	4,109	$8,455	10,020	$1,565	19%
3-Inch	$6,593	11,090	$9,270	7,710	$15,863	18,800	$2,937	19%
4-Inch	$10,990	18,487	$15,453	12,853	$26,443	31,340	$4,897	19%
6-Inch	$21,973	36,963	$30,897	25,697	$52,870	62,660	$9,790	19%
8-Inch	$35,158	59,143	$49,437	41,117	$84,595	100,260	$15,665	19%

Table 9 - East Impact Fee Comparison Schedule (Net Fee after Credit)

Meter Size	Water		Wastewater		Total		Change in Total Fee	
	Current	Proposed	Current	Proposed	Current	Proposed	$	%
Less than 1-Inch	$697	$3,901	$920	$1,897	$1,617	$5,798	$4,181	259%
1-Inch	$1,163	6,515	$1,537	3,168	$2,700	9,683	$6,983	259%
$1_{1/2}$-Inch	$2,321	12,990	$3,065	6,317	$5,386	19,307	$13,921	259%
2-Inch	$3,714	20,792	$4,905	10,111	$8,619	30,903	$22,284	259%
3-Inch	$6,968	39,010	$9,203	18,970	$16,171	57,980	$41,809	259%
4-Inch	$11,615	65,030	$15,341	31,623	$26,956	96,653	$69,697	259%
6-Inch	$23,223	130,020	$30,672	63,227	$53,895	193,247	$139,352	259%
8-Inch	$37,158	208,040	$49,077	101,167	$86,235	309,207	$222,972	259%

Tables 10-12 provide a comparison of the proposed impact fees resulting from this effort, the impact fees that were proposed in the last update (2014) and the impact fees currently in place; the impact fees adopted in 2009. This comparison is acutely relevant due to the dramatic increase in costs since 2014 coupled with the fact that the current fees were adopted by City Council in 2009 and have not been revised since.

Table 10 - Northeast Proposed versus 2014 Proposed versus Current

Meter Size	Total		
	Proposed	2014 Proposed	Current
Less than 1-Inch	$4,053	$3,574	$1,469
1-Inch	$6,769	$5,969	$2,453
$1_{1/2}$-Inch	$13,496	$11,901	$4,890
2-Inch	$21,602	$19,049	$7,827
3-Inch	$40,530	$35,740	$14,685
4-Inch	$67,564	$59,579	$24,480
6-Inch	$135,086	$119,121	$48,945
8-Inch	$216,146	$190,601	$78,315

Table 11 - West Proposed versus 2014 Proposed versus Current

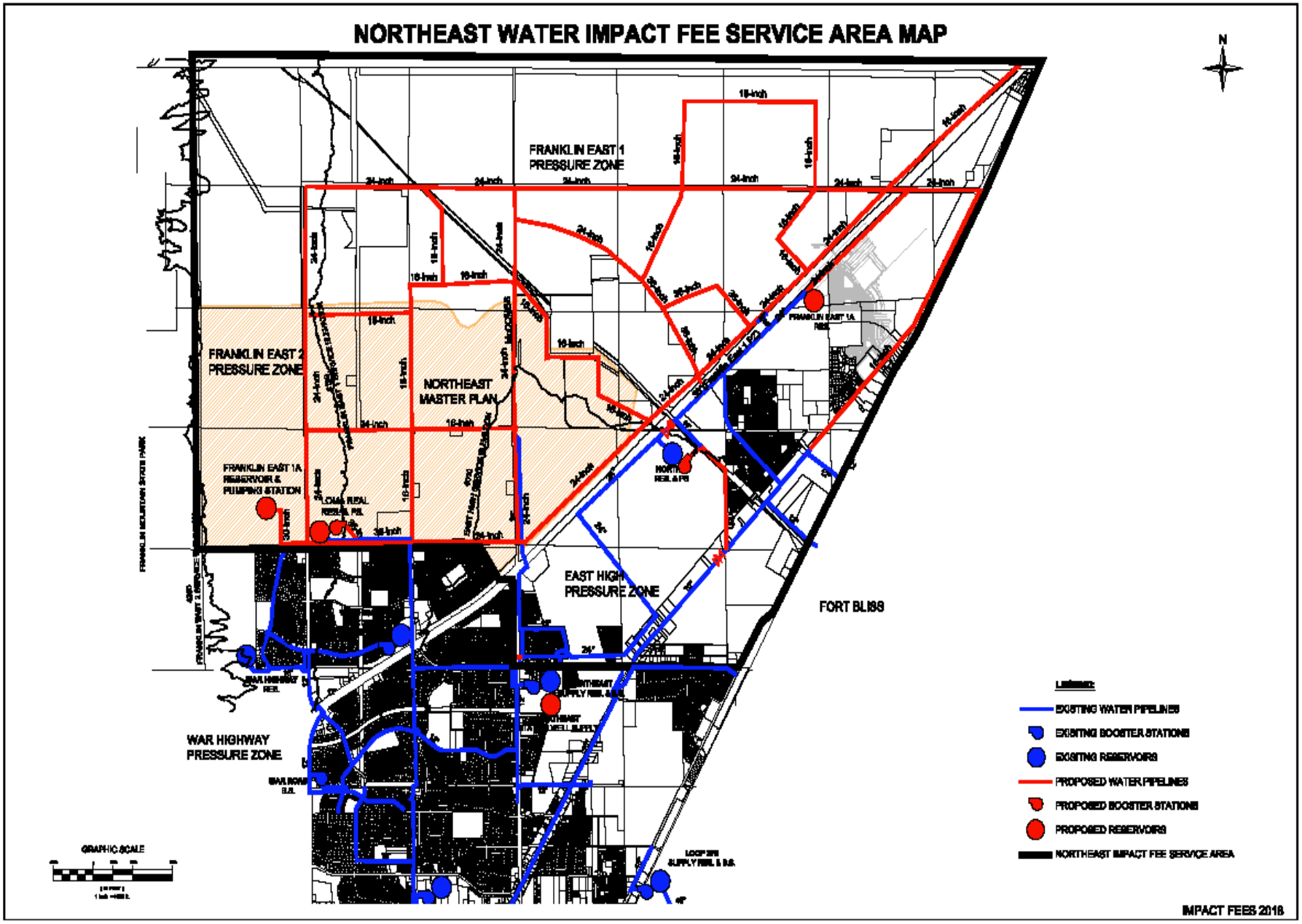
Meter Size	Total		
	Proposed	2014 Proposed	Current
Less than 1-Inch	$1,880	$2,286	$1,586
1-Inch	3,140	$3,818	$2,649
$1_{1/2}$-Inch	6,260	$7,612	$5,282
2-Inch	10,020	$12,184	$8,455
3-Inch	18,800	$22,860	$15,863
4-Inch	31,340	$38,108	$26,443
6-Inch	62,660	$76,192	$52,870

8-Inch	100,260	$121,912	$84,595

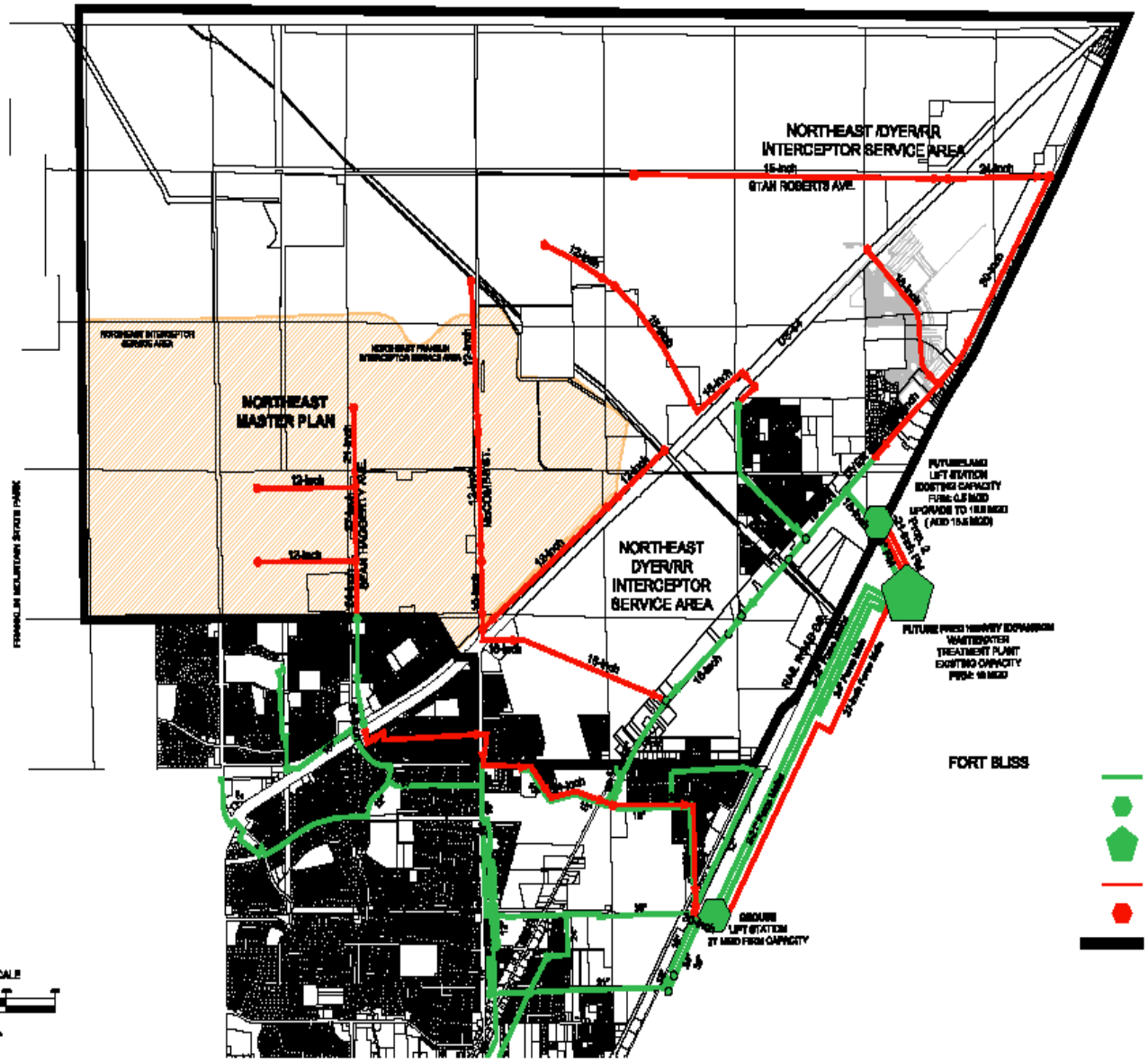
Table 12 - Eastside Proposed versus 2014 Proposed versus Current

Meter Size	Total		
	Proposed	2014 Proposed	Current
Less than 1-Inch	$5,798	$3,835	$1,617
1-Inch	9,683	$6,404	$2,700
$1_{1/2}$-Inch	19,307	$12,771	$5,386
2-Inch	30,903	$20,441	$8,619
3-Inch	57,980	$38,350	$16,171
4-Inch	96,653	$63,929	$26,956
6-Inch	193,247	$127,821	$53,895
8-Inch	309,207	$204,521	$86,235

Attachment A: Service Area Maps

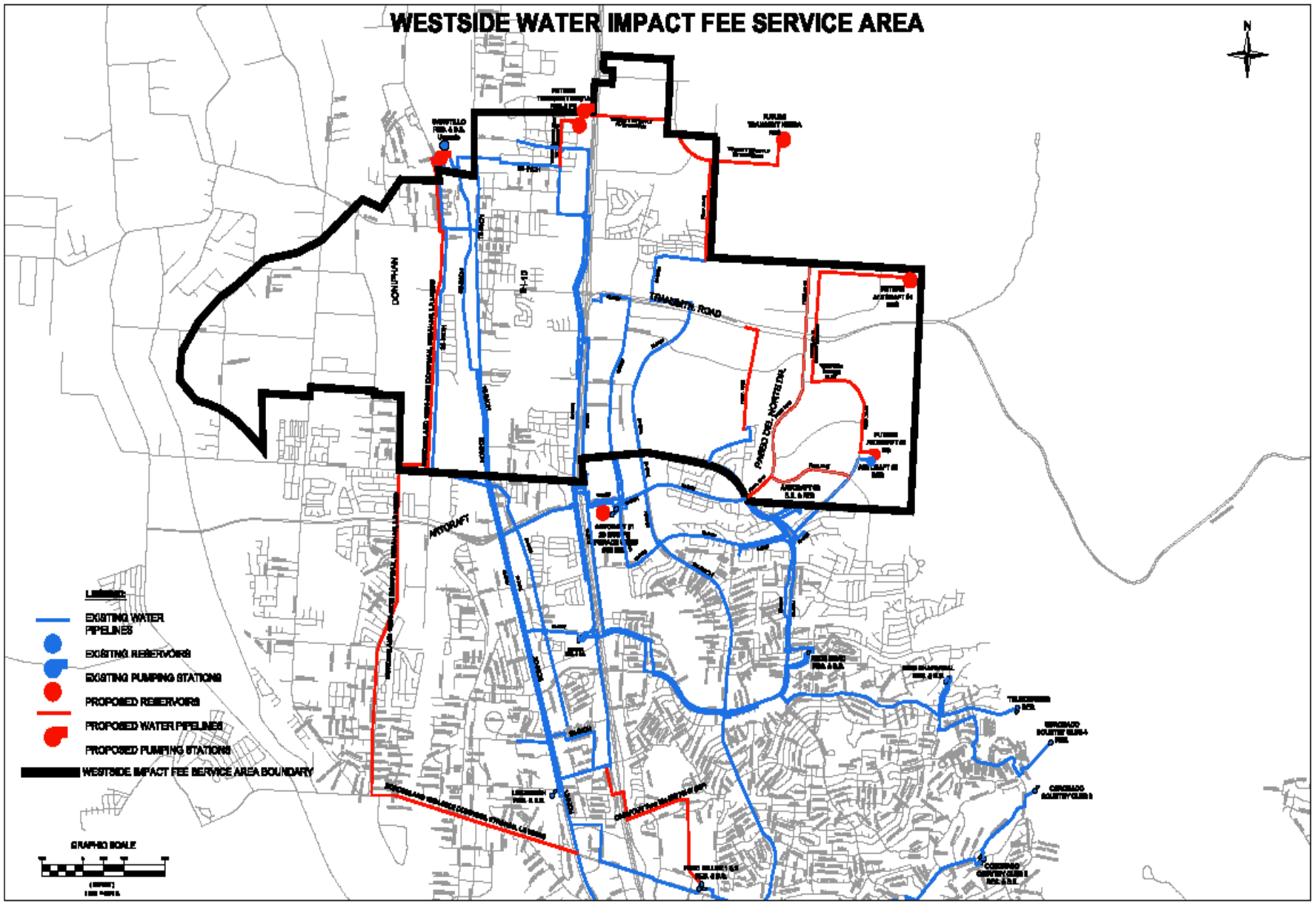


NORTHEAST SEWER IMPACT FEE SERVICE AREA MAP

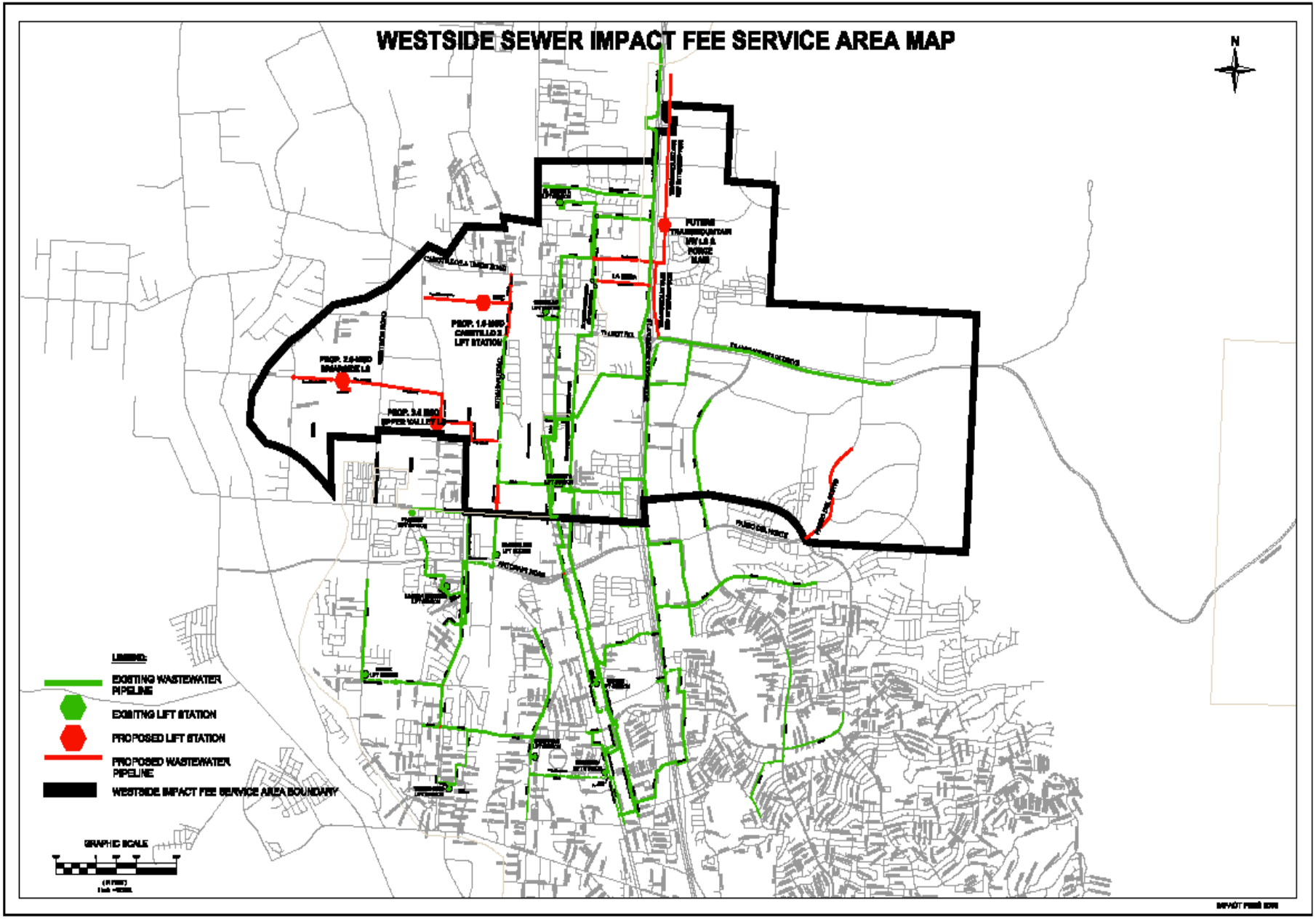


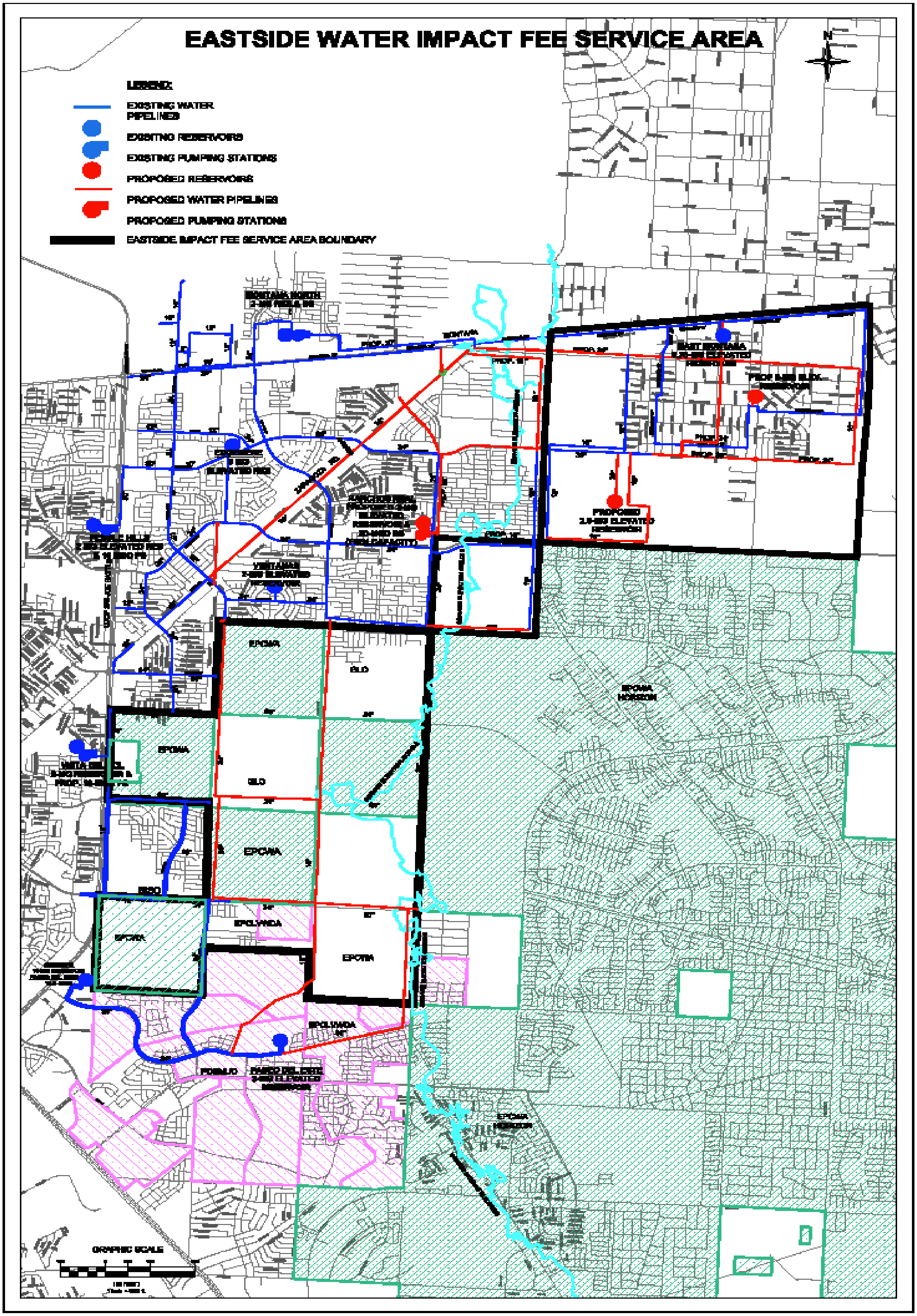
IMPACT FEES 2018

WESTSIDE WATER IMPACT FEE SERVICE AREA



IMPACT FEES 2018


WESTSIDE SEWER IMPACT FEE SERVICE AREA MAP
N
LEGEND:
EXISTING WASTEWATER PIPELINE
EXISTING LIFT STATION
PROPOSED LIFT STATION
PROPOSED WASTEWATER PIPELINE
WESTSIDE IMPACT FEE SERVICE AREA BOUNDARY
GRAPHIC SCALE


EASTSIDE WATER IMPACT FEE SERVICE AREA
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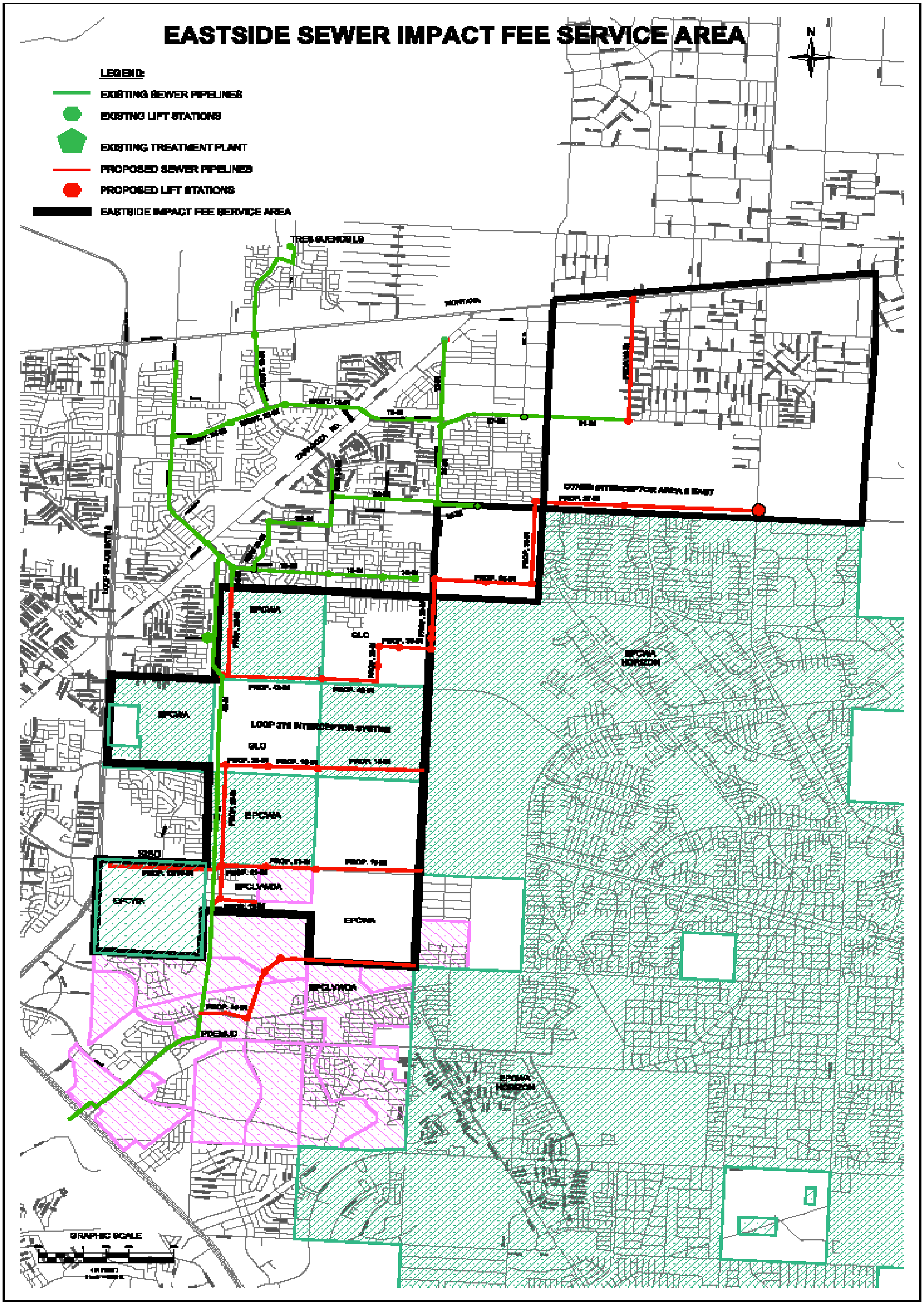
LEGEND:
EXISTING WATER PIPELINES
EXISTING RESERVOIRS
EXISTING PUMPING STATIONS
PROPOSED RESERVOIRS
PROPOSED WATER PIPELINES
PROPOSED PUMPING STATIONS
EASTSIDE IMPACT FEE SERVICE AREA BOUNDARY
EPCWA
GLO
EPCWA HORIZON
EPCLVNDA
GRAPHIC SCALE


EASTSIDE SEWER IMPACT FEE SERVICE AREA
N
LEGEND:
EXISTING SEWER PIPELINES
EXISTING LIFT STATIONS
EXISTING TREATMENT PLANT
PROPOSED SEWER PIPELINES
PROPOSED LIFT STATIONS
EASTSIDE IMPACT FEE SERVICE AREA
EPCWA
GLO
LOOP 375 INTERCEPTOR SYSTEM
EPCWA HORIZON
EPCLYWDA
GRAPHIC SCALE

Attachment B: Land Use Assumptions

Service Area	Total Acreage	Non-Residential										Conventional Residential				
		Transportation	Commercial	Industrial	Mixed Use	Parkland	Floodplain	Open	Agriculture	Undeveloped	Institutional/Utilities	Low	Medium	Medium-High	High	Total
Northeast																
01 Northeast MP	4,835	343	88	-	209	258	-	754	-	-	132	-	-	-	-	-
05A Northwest Fort Bliss A	4,812	284	5	-	9	38	-	248	-	-	708	-	2,992	229	51	3,273
05B Northwest Fort Bliss B	4,929	583	286	1,370	277	98	-	346	-	-	33	-	160	1,521	74	1,754
05C Northwest Fort Bliss C	4,520	147		317	-	23	-	51	-	-	1,788	-	2,191	-	2	2,194
Northeast Subtotal	**19,096**	**1,357**	**379**	**1,687**	**494**	**417**	**-**	**1,399**	**-**	**-**	**2,661**	**-**	**5,344**	**1,750**	**127**	**7,220**
Westside																
02 Westside MP	1,589	91	-	-	302	-	238	591	-	-	-	-	-	-	-	-
03A Northwest Vinton A	294	23	143	-	-	-	-	-	-	-	50	-	78	-	-	78
03E I-10375 MP	1,132	165	252	-	99	25	-	22	-	-	61	-	402	-	-	402
04A Northwest Artcraft A	1,639	79	47	-	-	6	130	105	-	3	1	-	1,264	4	-	1,268
04B Northwest Artcraft B	807	41	37	-	-	12	-	22	-	-	16	-	679	-	-	679
04C Northwest Artcraft C	159	18	5	26	-	2	-	-	-	9	2	17	77	-	2	96
04D Northwest Artcraft D	218	25	11	-	-	-	23	-	-	-	-	-	147	-	11	158
04E Canutillo	801	135	131	28	-	-	-	11	1	14	53	5	362	32	30	428
Other	2,348	365	802	304	-	63	-	11	-	-	173	-	459	142	30	630
Westside Subtotal	**8,987**	**942**	**1,428**	**358**	**401**	**108**	**391**	**763**	**1**	**26**	**356**	**21**	**3,467**	**178**	**73**	**3,739**
Eastside																
08B Eastside	4,826	531	270	638	-	186	-	23	-	344	16	-	195	2,610	13	2,817
12 South Montana	2,919	355	230	140	-	2	-	-	-	237	137	1,416	295	38	70	1,819
12B South Montana B	785	149	19	99	-	20	-	-	-	-	44	-	23	431	-	453
06 South Fort Bliss	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
08 East Battle	2,826	323	63	269	-	38	-	-	-	492	82	-	875	684	-	1,558
10B South Fort Bliss B	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Eastside Subtotal	**11,356**	**1,358**	**582**	**1,147**	**-**	**246**	**-**	**23**	**-**	**1,074**	**278**	**1,416**	**1,387**	**3,762**	**82**	**6,647**
Total	**39,439**	**3,658**	**2,389**	**3,192**	**896**	**771**	**391**	**2,185**	**1**	**1,100**	**3,295**	**1,438**	**10,198**	**5,690**	**282**	**17,607**

Attachment B: Land Use Cont.

Service Area	Total Acreage	SmartCode Residential					Context Zones Residential				RMU Residential						GMU Residential				
		T-3	T-4	T-4O	T-5	Total	C-3	C-4	C-5	Total	Single Family	Duplex	Triplex	Quadraplex	Apartments	Total	Low	Low	Medium	High	Total
Northeast																					
01 Northeast MP	4,835	-	-	-	-	-	81	81	15	177	-	-	-	-	-	-	521	1,663	403	289	2,875
05A Northwest Fort Bliss A	4,812	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	123	118	5	-	246
05B Northwest Fort Bliss B	4,929	54	93	9	27	183	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
05C Northwest Fort Bliss C	4,520	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Northeast Subtotal	**19,096**	**54**	**93**	**9**	**27**	**183**	**81**	**81**	**15**	**177**							**664**	**1,781**	**408**	**289**	**3,121**
Westside																					
02 Westside MP	1,589	99	170	40	58	367	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
03A Northwest Vinton A	294	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
03E I-10375 MP	1,132	-	-	-	-	-	-	-	-	-	70	10	3	3	17	105	-	-	-	-	-
04A Northwest Artcraft A	1,639	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
04B Northwest Artcraft B	807	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
04C Northwest Artcraft C	159	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
04D Northwest Artcraft D	218	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
04E Canutillo	801	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Other	2,348	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Westside Subtotal	**8,987**	**99**	**170**	**40**	**58**	**367**	**-**	**-**	**-**	**-**	**70**	**10**	**3**	**-**	**17**	**105**	**-**	**-**	**-**	**-**	**-**
Eastside																					
08B Eastside	4,826	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
12 South Montana	2,919	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
12B South Montana B	785	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
06 South Fort Bliss	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
08 East Battle	2,826	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
10B South Fort Bliss B	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Eastside Subtotal	**11,356**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
Total	**39,439**	**153**	**263**	**49**	**84**	**550**	**81**	**81**	**15**	**177**	**70**	**10**	**3**	**-**	**17**	**105**	**644**	**1,781**	**408**	**289**	**3,121**

Attachment B: Land Use Cont.

Residential Land Use Type	Residential Service Units per Acre
Conventional Residential Zones	
Low Density	2.0
Medium Density	4.5
Medium High Density	6.0
High Density	9.0
SmarCode Zone[1]	
T-3 Sub-Urban Zone	6.0
T-4 General Urban Zone	15.0
T-4O General Urban Zone - Open	20.0
T-5 Urban Center Zone	24.0
Northeast Retirement General Mixed Use Zone[2]	
Context Zone 3	3.6
Context Zone 4	6.4
Context Zone 5	15.0
Northeast General Mixed Use Zone[3]	
Low Residential Density	3.5
Low' Residential Density	5.5
Medium Residential Density	7.2
High Residential Density	12.0
Enchanted Hills Residential Mixed Use Zone[4]	
Single Family	4.0
Duplex	6.0
Triplex	8.0
Quadruplex	10.0
Apartments	14.0

[1]Applied to Northwest and Northeast properties zoned SmartCode.

[2]Applied to the Northeast master planned area intended to house a retirment community.

[3]Applied to remaining Northeast master planned area zoned General Mixed Use.

[4]Applied to the privately owned Enchanted Hills development zoned Residential Mixed Use.

Attachment C: Capital Improvements Plan

el paso WATER

Date: December 13, 2018

To: Richard D. Giardina
Rafielis Financial Consultants, Inc.

From: Adriana L. Castillo, P.E.
Engineering Division Manager

Copy: Marcela Navarrete, C.P.A.
Vice President

Re: **Water and Wastewater Capital Improvements – 2019 Impact Fee update**

In preparation for the 2019 Impact Fee Update and in accordance with the Texas State Statues, Local Government Code, Chapter 395, attached please find a description of the proposed Capital Improvements for the El Paso Water Utilities.

Attachment C contains a description of the proposed 10-year capital improvements and facility expansions necessitated by and attributed to new development based on the service areas.

Attachment D contains a list of the proposed 10-year capital improvements and facility expansions, and costs necessitated by and attributed to new development based on the service areas.

Maps for water and wastewater facilities for the three (3) service areas

We trust that this information provides the capital improvements and costs required to complete the update Impact Fee Study and meet the letter and intent of the Texas State Statues.

Please feel free to contact me with any questions.

STATE OF TEXAS
ADRIANA L. CASTILLO
106516
LICENSED
PROFESSIONAL ENGINEER

12/13/18

Adriana L. Castillo

Associated Water

WATER SUPPLY AND TREATMENT SYSTEM

ADVANCED WATER PURIFICATION FACILITY – The efforts by EPWater to continue to diversify the City's water supply portfolio will allow growth demand in the eastside and northeast to be met by the Advanced Water Purification Facility producing 8.0 MGD. This facility will recycle water that was used for irrigation into drinking water.

KBH EXPANSION Phase 1–In order to meet growth demand in the eastside and northeast, the KBH desalination facility will be expanded to provide an additional 5.0 MGD to its service area. The expansion includes a new Reverse Osmosis skid, source wells and concentrate injection wells.

RESERVOIRS

LOMA REAL TANK This project consists of constructing a 5.0 MG ground storage tank to meet demand on the East High Pressure Zone and provide suction for the Loma Real Pump Station that will pump water to the proposed Franklin East 1 B reservoir.

FRANKLIN EAST #1B - A 3.0 MG Reservoir and a 3.0 MG future reservoir to serve the Franklin East 1 Pressure Zone. The Reservoir is needed to meet future growth development of the lower reaches of the areas east of War Highway and to the State line.

TRANSMOUNTAIN NORTHWEST #1A – A 4.0 MG tank north of Transmountain on the Westside, at the same overflow elevation of Artcraft No. 1, to meet anticipated growth and provide suction storage for the proposed Transmountain Northwest 1 pump station.

TRANSMOUNTAIN NORTHWEST #2A – A proposed 3.0 MG tank north of Transmountain on the Westside, at the same overflow elevation of Artcraft No. 2, to meet anticipated growth.

EASTSIDE PLANNED SERVICE AREA (PSA) - New reservoir to serve areas east of Loop 375. Tierra Del Este (Ranchos Real) 3.0 MG elevated tank.

ARTCRAFT NO. 4 RESERVOIR – A 2.0 MG ground storage tank located on the west foothills of the Franklin Mountains to serve future development in the upper service areas east of IH-10 near Transmountain Road.

NORTHEAST STATION WELL SUPPLY TANK (I.F.) – A new 2.0 MG ground storage supply tank in Northeast El Paso, at the intersection of Sean Haggerty Drive and McCombs Blvd., adjacent to the Northeast Booster Station. This tank is needed to augment the existing storage capacity of the Northeast Well production system, and to accommodate future supply from the Sherman Well Field. This storage tank will also allow for additional pumping capacity to be installed at the Northeast Booster Station for pumping into the East High Pressure Zone and upper Franklin East Pressure Zone pumping, related future growth.

MONTANA EAST – A series of storage facilities have been conceptually planned to provide service on the Eastside north and south of the Montana Ave. corridor, extending about 8 miles east of Loop 375. EPWater's long-range plan projects a multi-year, multiphase approach to extend pipelines, construct elevated storage tanks (3 totaling 6.5 MG –and one pump station (15.0 MGD Phase I plus additional 10.0 MGD Phase 2) to supply these areas. This item includes two storage tanks, Vista Del Este (2.5 MG), and Homestead II (2.0 MG).

DISTRIBUTION PUMPING EQUIPMENT

ARTCRAFT #1 – A 20.0 MGD pumping station located at Northwestern and Paseo Del Norte (Artcraft Rd) in Northwest El Paso, was completed in late 2002 and will supply Artcraft #2 Reservoir. An additional 5.0 MGD will be added under this project to meet future demands.

NORTH 2 PUMP STATION – Initial 11.8 MGD to future 22.3 MGD pump station at the North 2 Tank site to meet future summer peak-day demands in the Franklin East Pressure Zones #1

TRANSMOUNTAIN NORTHWEST #1 PUMP STATION - Proposed pump station north of Transmountain on the Westside, to pump from Transmountain #1 Reservoir to Transmountain #2 Reservoir to meet growth.

ARTCRAFT #3 PUMP STATION – A 3.0 MGD pumping station in Northwest El Paso will supply Artcraft #4 reservoir.

LOMA REAL Pump station with an initial 3.0 MGD capacity which will provide pumping to supply the Franklin East 1 B reservoir.

MONTANA EAST (3.0 MGD – Ranchos Real) - Pump Stations have been conceptually planned to provide service to the Eastside for development along north and south of the Montana Ave. corridor, extending about 8-miles east of Loop 375. EPWater's long-range plan projects a multi-year three- phase approach to extend pipelines, construct elevated storage tanks, and booster stations.

ATTACHMENT C
Water and Wastewater Impact Fee Study
Description of Capital Improvement Facilities

DISTRIBUTION LINES

CANUTILLO/UV TRANSMISSION MAIN - NORTHWEST PHASE IV – Part of an existing major system of large diameter pipelines that extends and delivers water supply from the Canutillo Well Field and This item consists of Phase IV will consist of a 36-inch line extending from the Phase I – 48-inch line from Graphite & Mace to the Fred Miller Storage site.

TRANSMOUNTAIN NW SUPPLY TO TRANSMOUNTAIN #1 - A proposed transmission main on the Westside, from the Canutillo Main to the Transmountain Reservoir #1 to meet growth.

TRANSMOUNTAIN NW SUPPLY TO TRANSMOUNTAIN #2 - A proposed transmission main on the Westside, from the Transmountain Pumping Station #1 to the Transmountain Reservoir #2 to meet growth.

BORDERLAND 16-inch/24-inch DONIPHAN, STRAHAN, LA UNION – Part of the Northwest System upgrades to meet future growth on the west side. The project consists of the installation of a 36-inch transmission main. Also, there is an extension of a 16-inch or larger line from Galindo/Doniphan Dr., west along Borderland to Strahan Road.

EASTSIDE PLANNED SERVICE AREA (PSA) – Proposed transmission main lines necessary to serve areas east of Loop 375. Extensions of transmission mains associated with the construction of future new elevated tanks. This item provides the backbone for the water distribution to meet demand.

NORTHWEST DISTRIBUTION MAINS – Proposed transmission mains necessary to serve areas generally located north and south of Transmountain Road, east of IH-10, including the portions of the Northwest Regulating Plan within the Coronado Country Club 2 pressure zone.

ARTCRAFT #3 BOOSTER STATION TO ARTCRAFT #4 RESERVOIR - 24-inch pipe to connect the booster station to the reservoir.

MONTANA EAST SUPPLY LINES– Distribution facilities have been conceptually planned to provide service on the Eastside along north and south of the Montana Ave. corridor, extending about 8 miles east of Loop 375. EPWater's long-range plan projects a multi-year three-phase approach to extend pipelines, construct elevated storage tanks and a major pump station. This item considers the design and future construction of a backbone network of water transmission mains (16-inch to 24-inch) to supply these areas.

ATTACHMENT C
Water and Wastewater Impact Fee Study
Description of Capital Improvement Facilities

MONTANA EAST 36-inch LINE– - A proposed transmission main from the Ranchos Real Reservoir to the Montana East Reservoirs.

DYER / RR WATER LINE – A series of planned water mains to convey water to the far northeast part of the city. The proposed pipeline will tie into the NE Franklin Distribution Line near the intersection of Stan Roberts Dr. and US-54, and then will extend east along Stan Roberts to Dyer and then south along Dyer.

NE FRANKLIN DISTRIBUTION LINE – A network of water distribution mains, generally 16-inch to 24-inch, to be constructed within the Franklin East #1 Pressure Zones service areas (NE Master Planned areas) in response to and in step with emerging developments.

FRANKLIN EAST 1 DISTRIBUTION LINE – Water distribution main parallel to US-54 from the Franklin East 1 A tank to Stan Roberts Dr.

Associated Wastewater

COLLECTION LINES

NE DYER/RR INTERCEPTOR - Series of gravity sewer lines extending from the New Mexico-Texas boundary near Stan Roberts Dr. and Dyer St. that convey wastewater flows to the Fred Hervey Reclamation Plant. This system will service future development in the Northeast including the existing Futureland Subdivision.

OTHER EAST INTERCEPTORS (Area 8 East) – Sewer trunk collectors related to development east of Zaragoza and Loop 375 for the area commonly known as Montana Vista and adjacent annexed areas requests for service by developers. Includes oversized collectors in which the EPWater participates.

LOOP 375 EAST INTERCEPTOR SYSTEM - These multi-phase, multi-year interceptors will serve the ETJ areas east of Loop 375, including GLO and proposed MUDS. A master plan study for this area was completed in 1997. It includes relieving Saul Kleinfield Interceptors and Playa Drain (Mesa Drain and Valley) Interceptors. All interceptors in this program will ultimately transport flow to the Roberto R. Bustamante Wastewater Treatment Plant via the Eastside Interceptor System already constructed.

TRANSMOUNTAIN NORTHWEST INTERCEPTORS – Proposed sewer interceptors necessary to serve areas north of Transmountain Road and east of IH-10 on the Westside to meet growth. Future projects scheduled for construction may depend on development progress.

NE INTERCEPTOR SYSTEM – Sanitary sewer pipelines designed to collect and convey wastewater flows from the Sandstone Ranch Subdivision and a portion of land in the Northeast area. The sanitary sewer pipeline will extend along the future Sean Haggerty Blvd (north of US-54), and south crossing the US-54 along the existing Sean Haggerty Blvd, to the existing Grouse Street Lift Station or to the future Northeast Lift Station, where the wastewater will ultimately be treated at the Fred Hervey Water Reclamation Plant. This is a multi-year, multi-phase project.

NE FRANKLIN SERVICE AREA –Pipeline designed to collect and convey wastewater flows from the proposed Northeast Service Area. Flows will be collected from near the Texas-New Mexico border, south crossing US-54 to be delivered to the existing Grouse Street Lift Station, where the wastewater will ultimately be treated at the Fred Hervey Water Reclamation Plant. This is a multi-year, multi-phase project.

PASEO DEL NORTE EXTENSION - Proposed sanitary sewer mains lines necessary to serve areas generally located south of Transmountain Rd., east of IH10. This item will collect the flows for portions of the Northwest Regulating Plan.

LA MESA LINE – Proposed sewer main along La Mesa Ave., east of IH-10 to convey flows from the properties east of IH-10 to the Mowad Interceptor System.

STRAHAN INTERCEPTOR - Proposed sewer main along Strahan Rd. to provide service to developments on the Upper Valley.

PUMPING STATIONS AND FORCE MAINS

TRANSMOUNTAIN NORTH LIFT STATION & FORCE MAIN – This proposed station to be constructed on the east side of IH-10 north of Transmountain Rd. in Northwest El Paso to provide service to future Transmountain North developments to meet growth.

NE DYER/RAILROAD LIFT STATION – Project consists of an initial phase to upgrade the existing 0.5 MGD Futureland Lift Station to 1.3 MGD service capacity. As part of the utility's ultimate facility wastewater plan for in-fill development areas in the vicinity of the Dyer St. to Railroad Drive Corridor between McCombs St. and the State Line, a 5 MGD expandable to a future 11.0 MGD wastewater lift station is proposed which will convey wastewater generated from this area to the Fred Hervey Water Reclamation Plant.

UPPER VALLEY THREE LIFT STATIONS – A series of lift stations (1.5, 2.5, 3.5 MGD) proposed for new developments north of Borderland Rd. along the Strahan Rd. corridor. These stations will ultimately discharge into the Strahan Interceptor that will extend and connect into the Easy Way II Lift Station.

TREATMENT PLANT EXPANSION

BUSTAMANTE WWTP EXPANSION – Multi-approach construction project to expand the loading and flow capacity of the Roberto Bustamante WWTP from 39.0 MGD to 54.0 MGD.

Attachment D: Capital Improvement Plan Cost Projection

ATTACHMENT D
Water and Wastewater Impact Fee Study
Proposed Capital Improvements and Costs

Northeast Service Area - Water		**Capital Cost**
Water Supply and Treatment System		
KBH Phase 1		$ 9,700,000
Advanced Water Purification Facility		$ 9,680,000
	Subtotal:	$ 19,380,000
Water Distribution System		
Reservoirs		
Loma Real Tank- Ground (5MG)		$ 7,500,000
Franklin East 1B (3 MG)- Ground		$ 3,000,000
NE Station Well Supply Tank (2)		$ 6,650,000
	Subtotal:	$ 17,150,000
Distribution Pumping Equipment		
North Two Pump Station (11.8 MGD)		$ 4,320,000
Loma Real Pump Station (initial 3 MGD)		$ 1,235,000
	Subtotal:	$ 5,555,000
Distribution Lines		
Dyer/RR Waterline		$ 4,500,000
NE Franklin Distribution Line		$ 26,700,000
Franklin East Distribution		$ 2,035,000
	Subtotal:	$ 33,235,000
Total Water CIP		**$ 75,320,000**

Northeast Service Area - Wastewater		**Capital Cost**
Wastewater Treatment System		
No wastewater treatment CIP proposed		$ -
Collection System		
Lines		
NE Dyer/RR Interceptor		$ 10,920,000
NE Interceptor System (EPWU-NEMP)		$ 11,400,000
NE Franklin Service Area		$ 8,800,000
	Subtotal:	$ 31,120,000
Pumping & Force Mains		
NE Dyer/RR Lift Station (5 MGD)		$ 6,000,000
Total Wastewater CIP		**$ 37,120,000**

ATTACHMENT D (continued)
Water and Wastewater Impact Fee Study
Proposed Capital Improvements and Costs

Westside Service Area - Water		**Capital Cost**
Water Supply and Treatment System		
No water supply or treatment system CIP proposed		$ -
Water Distribution System		
Reservoirs		
TransMountain NW #1A (4)		$ 4,500,000
TransMountain NW #2A (3)		$ 3,500,000
Artcraft #4 Tank (2)		$ 3,800,000
	Subtotal:	$ 11,800,000
Distribution Pumping Equipment		
Artcraft #1-NW-WFMP		$ 450,000
TransMountain NW #1 Pump Station		$ 2,000,000
Artcraft #3 Pump Station		$ 1,235,000
	Subtotal:	$ 3,685,000
Distribution Lines		
Canut/UV Trns Mn-NW PH IV (36")		$ 5,000,000
TransMtn NW Supply to TransMtn #1		$ 1,750,000
TransMtn NW Supply to TransMtn #2		$ 3,500,000
Borderland 16"/24" Doniphan, Strahan, La Union		$ 10,500,000
Artcraft #3 to #4 Trans Mountain		$ 10,500,000
NW Water Distribution Mains		$ 8,200,000
	Subtotal:	$ 39,450,000
Total Water CIP		**$ 54,935,000**

Westside Service Area - Wastewater		**Capital Cost**
Wastewater Treatment System		
No wastewater treatment CIP proposed		$ -
Collection System		
Lines		
TransMountain NW Interceptors		$ 1,680,000
La Mesa Line Interconnection		$ 400,000
Paseo Del Norte		$ 1,635,000
Strahan Interceptor		$ 1,500,000
	Subtotal:	$ 5,215,000
Pumping & Force Mains		
TransMountain North LS & FM (0.344 MGD for development)		$ 600,000
Upper Valley 3 LS (1.5+2.5+3.5 MGD)		$ 7,100,000
	Subtotal:	$ 7,700,000
Total Wastewater CIP		**$ 12,915,000**

ATTACHMENT D (continued)
Water and Wastewater Impact Fee Study
Proposed Capital Improvements and Costs

Eastside Service Area - Water		**Capital Cost**
Water Supply and Treatment System		
KBH Phase 1		$ 9,700,000
Advanced Water Purification Facility		$ 32,670,000
	Subtotal:	$ 42,370,000
Water Distribution System		
Reservoirs		
Montana East Reservoirs (2.5 + 2.0)- Vista Del Este/Homestead II		$ 12,250,000
Eastside PSA Reservoirs (Ranchos Real- 2.0)		$ 6,000,000
	Subtotal:	$ 18,250,000
Distribution Pumping Equipment		
Montana East (3 MGD)- Ranchos Real		$ 1,200,000
Distribution Lines		
Eastside Planned Service Area		$ 18,000,000
Montana East Supply Line Area		$ 14,700,000
Montana East 36" Line		$ 6,700,000
	Subtotal:	$ 39,400,000
Total Water CIP		**101,220,000**

Eastside Service Area - Wastewater		**Capital Cost**
Wastewater Treatment System		
Bustamante WWTP Expansion from 39 to 54 MGD		$ 64,000,000
Collection System		
Lines		
Other Interceptors (Area 8 East)		$ 10,400,000
Loop 375 East Interceptor System		$ 17,150,000
	Subtotal:	$ 27,550,000
Pumping & Force Mains		
No wastewater pumping & force main CIP proposed		-
Total Wastewater CIP		**$ 91,550,000**

Attachment E Impact Fee Calculation by Service Area

ATTACHMENT E
Water and Wastewater Impact Fee Study
Northeast Service Area

Water Service Unit Flows (Max Day) **688** gpd

Line No.	Northeast Service Area - Water		Capital Cost	Capacity (MGD)	Total Service Units	Unit Cost of Capacity	Weighted Average
	Water Supply and Treatment System						
1	KBH Phase 1		$ 9,700,000	5.00	7,267	$ 1,335	
2	Advanced Water Purification Facility		$ 9,680,000	8.00	11,628	$ 832	
		Subtotal	$ 19,380,000		18,895		$ 1,026
	Debt Issued						
3	KBH Phase 1		$ 3,450,000				
4	Advanced Water Purification Facility		$ 3,445,000				
		Subtotal	$ 6,895,000				
	NPV of Interest						
5	KBH Phase 1		$ 1,462,630	5.00	7,267	201	
6	Advanced Water Purification Facility		$ 1,460,510	8.00	11,628	126	
		Subtotal	$ 2,923,140		18,895		$ 155
	Water Distribution System						
	Reservoirs						
7	Loma Real Tank- Ground (5MG)		$ 7,500,000	5.00	14,535	$ 516	
8	Franklin East 1B (3 MG)- Ground		$ 3,000,000	3.00	8,721	$ 344	
9	NE Station Well Supply Tank (2)		$ 6,650,000	2.00	5,814	$ 1,144	
		Subtotal	$ 17,150,000		29,070		$ 590
	Debt Issued						
10	Loma Real Tank- Ground (5MG)		$ 2,670,000				
11	Franklin East 1B (3 MG)- Ground		$ 1,070,000				
12	NE Station Well Supply Tank (2)		$ 2,365,000				
		Subtotal	$ 6,105,000				
	NPV of Interest						
13	Loma Real Tank- Ground (5MG)		$ 1,131,948	5.00	14,535	$ 78	
14	Franklin East 1B (3 MG)- Ground		$ 453,627	3.00	8,721	$ 52	
15	NE Station Well Supply Tank (2)		$ 1,002,643	2.00	5,814	$ 172	
		Subtotal	$ 2,588,219		29,070		$ 89
	Distribution Pumping Equipment						
16	North Two Pump Station (11.8 MGD)		$ 4,320,000	11.80	17,151	$ 252	
17	Loma Real Pump Station (initial 3 MGD)		$ 1,235,000	3.00	4,360	$ 283	
		Subtotal	$ 5,555,000		21,512		$ 258
	Debt Issued						
18	North Two Pump Station (11.8 MGD)		$ 1,540,000				
19	Loma Real Pump Station (initial 3 MGD)		$ 440,000				
		Subtotal	$ 1,980,000				
	NPV of Interest						
20	North Two Pump Station (11.8 MGD)		$ 652,884	11.80	17,151	$ 38	
21	Loma Real Pump Station (initial 3 MGD)		$ 186,538	3.00	4,360	$ 43	
		Subtotal	$ 839,422		21,512		$ 39
	Distribution Lines						
22	Dyer/RR Waterline		$ 4,500,000			$ 1,113	
23	NE Franklin Distribution Line		$ 26,700,000	20.55	29,869	$ 1,113	
24	Franklin East Distribution		$ 2,035,000			$ 1,113	
		Subtotal	$ 33,235,000		29,869		$ 1,113
	Debt Issued						
25	Dyer/RR Waterline		$ 1,605,000				
26	NE Franklin Distribution Line		$ 9,495,000				
27	Franklin East Distribution		$ 725,000				
		Subtotal	$ 11,825,000				
	NPV of Interest						
28	Dyer/RR Waterline		$ 680,441			$ 168	
29	NE Franklin Distribution Line		$ 4,025,412	20.55	29,869	$ 168	
30	Franklin East Distribution		$ 307,364			$ 168	
		Subtotal	$ 5,013,217		29,869		$ 168
31	**Maximum Water Impact Fee - Northeast Service Area (Capital and Financing)**						**$ 3,437**

ATTACHMENT E (continued)
Water and Wastewater Impact Fee Study
Northeast Service Area

Wastewater Service Unit Flows (Max Day) **341** gpd

Line No.	Northeast Service Area - Wastewater		Capital Cost	Capacity (MGD)	Total Service Units	Unit Cost of Capacity	Weighted Average
	Wastewater Treatment System						
1	No wastewater treatment CIP proposed		-	-	-	-	-
	Collection System						
	Lines						
2	NE Dyer/RR Interceptor		$ 10,920,000	3.92	11,497	$ 950	
3	NE Interceptor System (EPWU-NEMP)		$ 11,400,000	6.54	19,182	$ 594	
4	NE Franklin Service Area		$ 8,800,000	4.80	14,089	$ 625	
		Subtotal	$ 31,120,000		44,768		$ 695
	Debt Issued						
5	NE Dyer/RR Interceptor		$ 3,885,000				
6	NE Interceptor System (EPWU-NEMP)		$ 4,055,000				
7	NE Franklin Service Area		$ 3,130,000				
		Subtotal	$ 11,070,000				
	NPV of Interest						
8	NE Dyer/RR Interceptor		$ 1,647,049	3.92	11,497	$ 143	
9	NE Interceptor System (EPWU-NEMP)		$ 1,719,120	6.54	19,182	$ 90	
10	NE Franklin Service Area		$ 1,326,966	4.80	14,089	$ 94	
		Subtotal	$ 4,693,134		44,768		$ 105
	Pumping & Force Mains						
11	NE Dyer/RR Lift Station (5 MGD)		$ 6,000,000	5.00	14,663	$ 409	$ 409
	Debt Issued						
12	NE Dyer/RR Lift Station (5 MGD)		$ 2,135,000				
	NPV of Interest						
13	NE Dyer/RR Lift Station (5 MGD)		$ 905,135	5.00	14,663	$ 62	$ 62
14	**Maximum Wastewater Impact Fee - Northeast Service Area (Capital and Financing)**						**$ 1,271**
15	**Maximum Northeast Water and Wastewater Impact Fee**						**$ 4,708**

ATTACHMENT E (continued)
Water and Wastewater Impact Fee Study
Westside Service Area

Water Service Unit Flows (Max Day) **688** gpd

Line No.	Westside Service Area		Capital Cost	Capacity (MGD)	Total Service Units	Unit Cost of Capacity	Weighted Average
	Water Supply and Treatment System						
1	No water supply or treatment system CIP proposed		-	-	-	-	-
	Water Distribution System						
	Reservoirs						
1	TransMountain NW #1A (4)		$ 4,500,000	4.00	11,628	$ 387	
2	TransMountain NW #2A (3)		$ 3,500,000	3.00	8,721	$ 401	
3	Artcraft #4 Tank (2)		$ 3,800,000	2.00	5,814	$ 654	
		Subtotal	$ 11,800,000		26,163		$451
	Debt Issued						
4	TransMountain NW #1A (4)		$ 1,605,000				
5	TransMountain NW #2A (3)		$ 1,245,000				
6	Artcraft #4 Tank (2)		$ 1,355,000				
		Subtotal	$ 4,205,000				
	NPV of Interest						
7	TransMountain NW #1A (4)		$ 680,441	4.00	11,628	$ 59	
8	TransMountain NW #2A (3)		$ 527,819	3.00	8,721	$ 61	
9	Artcraft #4 Tank (2)		$ 574,453	2.00	5,814	$ 99	
		Subtotal	$ 1,782,713		26,163		$68
	Distribution Pumping Equipment						
10	Artcraft #1-NW-WFMP		$ 450,000	5.00	7,267	$ 62	
11	TransMountain NW #1 Pump Station		$ 2,000,000	3.00	4,360	$ 459	
12	Artcraft #3 Pump Station		$ 1,235,000	3.00	4,360	$ 283	
		Subtotal	$ 3,685,000		15,988		$230
	Debt Issued						
13	Artcraft #1-NW-WFMP		$ 165,000				
14	TransMountain NW #1 Pump Station		$ 715,000				
15	Artcraft #3 Pump Station		$ 440,000				
		Subtotal	$ 1,320,000				
	NPV of Interest						
16	Artcraft #1-NW-WFMP		$ 69,952	5.00	7,267	$ 10	
17	TransMountain NW #1 Pump Station		$ 303,125	3.00	4,360	$ 70	
18	Artcraft #3 Pump Station		$ 186,538	3.00	4,360	$ 43	
		Subtotal	$ 559,615		15,988		$35
	Distribution Lines						
19	Canut/UV Trns Mn-NW PH IV (36")		$ 5,000,000	22.00	31,977	$ 156	
20	TransMtn NW Supply to TransMtn #1		$ 1,750,000	22.00	31,977		
21	TransMtn NW Supply to TransMtn #2		$ 3,500,000			$ 164	
22	Borderland 16"/24" Doniphan, Strahan, La Union		$ 10,500,000	10.00	14,535	$ 722	
23	Artcraft #3 to #4 Trans Mountain		$ 10,500,000	6.00	8,721	$ 1,204	
	NW Water Distribution Mains		$ 8,200,000	4.11	5,974	$ 1,373	
		Subtotal	$ 39,450,000		87,209		$423
	Debt Issued						
24	Canut/UV Trns Mn-NW PH IV (36")		$ 1,780,000				
25	TransMtn NW Supply to TransMtn #1		$ 625,000				
26	TransMtn NW Supply to TransMtn #2		$ 1,245,000				
27	Borderland 16"/24" Doniphan, Strahan, La Union		$ 3,735,000				
28	Artcraft #3 to #4 Trans Mountain		$ 3,735,000				
29	NW Water Distribution Mains		$ 2,920,000				
		Subtotal	$ 14,040,000				
	NPV of Interest						
30	Canut/UV Trns Mn-NW PH IV (36")		$ 754,632	22.00	31,977	$ 24	
31	TransMtn NW Supply to TransMtn #1		$ 264,969	22.00	31,977	$ 25	
32	TransMtn NW Supply to TransMtn #2		$ 527,819			$ 25	
33	Borderland 16"/24" Doniphan, Strahan, La Union		$ 1,583,456	10.00	14,535	$ 109	
34	Artcraft #3 to #4 Trans Mountain		$ 1,583,456	6.00	8,721	$ 182	
35	NW Water Distribution Mains		$ 1,237,936	4.11	5,974	$ 207	
		Subtotal	$ 5,952,268		87,209		$64
36	**Maximum Water Impact Fee - Westside Service Area (Capital and Financing)**						**$ 1,272**

ATTACHMENT E (continued)
Water and Wastewater Impact Fee Study
Westside Service Area

Wastewater Service Unit Flows (Max Day) **341** gpd

Line No.	Westside Service Area		Capital Cost	Capacity (MGD)	Total Service Units	Unit Cost of Capacity	Weighted Average
	Wastewater Treatment System						
1	No wastewater treatment CIP proposed		-	-	-	-	-
	Collection System						
	Lines						
2	TransMountain NW Interceptors		$ 1,680,000	2.38	3,459	$ 486	
3	La Mesa Line Interconnection		$ 400,000	4.50	6,541	$ 61	
4	Paseo Del Norte		$ 1,635,000	2.78	4,041	$ 405	
5	Strahan Interceptor		$ 1,500,000	1.70	2,471	$ 607	
		Subtotal	$ 5,215,000		16,512		$ 316
	Debt Issued						
6	TransMountain NW Interceptors		$ 600,000				
7	La Mesa Line Interconnection		$ 145,000				
8	Paseo Del Norte		$ 585,000				
9	Strahan Interceptor		$ 535,000				
		Subtotal	$ 1,865,000				
	NPV of Interest						
10	TransMountain NW Interceptors		$ 254,370	2.38	3,459	$ 74	
11	La Mesa Line Interconnection		$ 61,473	4.50	6,541	$ 9	
12	Paseo Del Norte		$ 248,011	2.78	4,041	$ 61	
13	Strahan Interceptor		$ 226,814	1.70	2,471	$ 92	
		Subtotal	$ 790,668		16,512		48
	Pumping & Force Mains						
14	TransMountain North LS & FM (0.344 MGD for development)		$ 600,000	0.34	1,009	$ 595	
15	Upper Valley 3 LS (1.5+2.5+3.5 MGD)		$ 7,100,000	5.00	14,663	$ 484	
		Subtotal	$ 7,700,000		15,672		491
	Debt Issued						
16	TransMountain North LS & FM		$ 215,000				
17	Upper Valley 3 LS (1.5+2.5+3.5 MGD)		$ 2,525,000				
		Subtotal	$ 2,740,000				
	NPV of Interest						
18	TransMountain North LS & FM		$ 91,149	0.34	1,009	$ 90	
19	Upper Valley 3 LS (1.5+2.5+3.5 MGD)		$ 1,070,476	5.00	14,663	$ 73	
		Subtotal	$ 1,161,625		15,672		74
20	**Maximum Wastewater Impact Fee - Westside Service Area (Capital and Financing)**						**$ 929**
21	**Maximum Water and Wastewater Impact Fee - Westside Area**						**$ 2,201**

ATTACHMENT E (continued)
Water and Wastewater Impact Fee Study
Eastside Service Area

Water Service Unit Flows (Max Day) **688** gpd

Line No.	Eastside Service Area		Capital Cost	Capacity (MGD)	Total Service Units	Unit Cost of Capacity	Weighted Average
	Water Supply and Treatment System						
1	KBH Phase 1		$ 9,700,000	5.00	7,267	$ 1,335	
2	Advanced Water Purification Facility		$ 32,670,000	8.00	11,628	$ 2,810	$ 2,242
		Subtotal	$ 42,370,000		18,895		
	Debt Issued						
3	KBH Phase 1		$ 3,450,000				
4	Advanced Water Purification Facility		$ 11,620,000				
		Subtotal	$ 15,070,000				
	NPV of Interest						
5	KBH Phase 1		$ 1,462,630	5.00	7,267	$ 201	
6	Advanced Water Purification Facility		$ 4,926,307	8.00	11,628	$ 424	$ 338
		Subtotal	$ 6,388,937		18,895		
	Water Distribution System						
	Reservoirs						
7	Montana East Reservoirs (2.5 + 2.0)- Vista Del Este/Homestead II		$ 12,250,000	4.50	13,081	$ 936	
8	Eastside PSA Reservoirs (Ranchos Real- 2.0)		$ 6,000,000	2.00	5,814	$ 1,032	
		Subtotal	$ 18,250,000		18,895		$ 966
	Debt Issued						
9	Montana East Reservoirs (2.5 + 2.0)- Vista Del Este/Homestead II		$ 4,360,000				
10	Eastside PSA Reservoirs (Ranchos Real- 2.0)		$ 2,135,000				
		Subtotal	$ 6,495,000				
	NPV of Interest						
11	Montana East Reservoirs (2.5 + 2.0)- Vista Del Este/Homestead II		$ 1,848,425	4.50	13,081	$ 141	
12	Eastside PSA Reservoirs (Ranchos Real- 2.0)		$ 905,135	2.00	5,814	$ 156	
		Subtotal	$ 2,753,560		18,895		$ 146
	Distribution Pumping Equipment						
13	Montana East (3 MGD)- Ranchos Real		$ 1,200,000	3.00	4,360	$ 275	$ 275
	Debt Issued						
14	Montana East (3 MGD)- Ranchos Real		$ 430,000				
	NPV of Interest						
15	Montana East (3 MGD)- Ranchos Real		$ 182,299	3.00	4,360	$ 42	$ 42
	Distribution Lines						
16	Eastside Planned Service Area		$ 18,000,000	20.00	29,070	$ 619	
17	Montana East Supply Line Area		$ 14,700,000	22.30	32,413	$ 454	
18	Montana East 36" Line		$ 6,700,000	25.00	36,337	$ 184	
		Subtotal	$ 39,400,000		61,483		$ 403
	Debt Issued						
19	Eastside Planned Service Area		$ 6,405,000				
20	Montana East Supply Line Area		$ 5,230,000				
21	Montana East 36" Line		$ 2,385,000				
		Subtotal	$ 14,020,000				
	NPV of Interest						
22	Eastside Planned Service Area		$ 2,715,404	20.00	29,070	$ 93	
23	Montana East Supply Line Area		$ 2,217,262	22.30	32,413	$ 68	
24	Montana East 36" Line		$ 1,011,122	25.00	36,337	$ 28	
		Subtotal	$ 5,943,789		61,483		$ 61
25	**Maximum Water Impact Fee - Eastside Service Area (Capital and Financing)**						**$ 4,473**

ATTACHMENT E (continued)
Water and Wastewater Impact Fee Study
Eastside Service Area

Wastewater Service Unit Flows (Max Day) **341** gpd

Line No.	Eastside Service Area		Capital Cost	Capacity (MGD)	Total Service Units	Unit Cost of Capacity	Weighted Average
	Wastewater Treatment System						
1	Bustamante WWTP Expansion from 39 to 54 MGD		$ 64,000,000	15.00	43,988	$ 1,455	$ 1,455
	Debt Issued						
2	Bustamante WWTP Expansion from 39 to 54 MGD		$ 22,760,000				
	NPV of Interest						
3	Bustamante WWTP Expansion from 39 to 54 MGD		$ 9,649,118	15.00	43,988	$ 219	$ 219
	Collection System						
	Lines						
1	Other Interceptors (Area 8 East)		10,400,000	7.86	23,055	$ 451	
2	Loop 375 East Interceptor System		17,150,000	9.82	28,800	$ 595	
		Subtotal	27,550,000		51,855		$ 531
	Debt Issued						
3	Other Interceptors (Area 8 East)		3,700,000				
4	Loop 375 East Interceptor System		6,100,000				
		Subtotal	9,800,000				
	NPV of Interest						
5	Other Interceptors (Area 8 East)		1,568,618	7.86	23,055	$ 68	
6	Loop 375 East Interceptor System		2,586,099	9.82	28,800	$ 90	
		Subtotal	4,154,717		51,855		$ 80
	Pumping & Force Mains						
7							
	Debt Issued						
8			-				
9	**NPV of Interest**						
			$ -		0		
10	**Maximum Wastewater Impact Fee - Eastside Service Area (Capital and Financing)**						**$ 2,286**
11	**Maximum Eastside Water and Wastewater Impact Fee**						**$ 6,758**

Attachment F Maximum Impact Fee Calculation

ATTACHMENT F
Water and Wastewater Impact Fee Study
Maximum Impact Fee Per Service Unit

Service Area and Category of Capital Improvement	Capital Improvement Costs	Amount Financed	Financing Costs (NPV of Interest)	Facility Service Units	Projected New Service Units through 2029	Portion of Capital Improvements and Financing	Maximum Impact Fee per Unit
Northeast							
Water							
Treatment	$19,380,000	6,895,000	2,923,140	18,895	21,661	25,567,579	1,180
Reservoirs	17,150,000	6,105,000	2,588,219	29,070	21,661	14,707,705	679
Pumping	5,555,000	1,980,000	839,422	21,512	21,661	6,438,824	297
Distribution Lines	33,235,000	11,825,000	5,013,217	29,869	21,661	27,737,436	1,281
Total Water	75,320,000	26,805,000	11,363,999	N/A	21,661	74,451,544	3,437
Wastewater							
Treatment	0	0	0	-	21,661	0	0
Collection Lines	31,120,000	11,070,000	4,693,134	44,768	21,661	17,328,188	800
Pumping[1]	6,000,000	2,135,000	905,135	14,663	21,661	10,200,819	471
Total Wastewater	37,120,000	13,205,000	5,598,269	N/A	21,661	27,529,007	1,271
Total Northeast Area	**$112,440,000**	**$40,010,000**	**$16,962,268**	**N/A**	**21,661**	**$101,980,550**	**$4,708**
Westside							
Water							
Treatment	$0	$0	$0	-	19,574	$0	$0
Reservoirs	11,800,000	4,205,000	1,782,713	26,163	19,574	10,162,067	519
Pumping	3,685,000	1,320,000	559,615	15,988	19,574	5,196,532	265
Distribution Lines	39,450,000	14,040,000	5,952,268	87,209	19,574	10,190,472	521
Total Water	54,935,000	19,565,000	8,294,596	N/A	19,574	25,549,071	1,305
Wastewater							
Treatment	0	0	0	-	19,574	0	0
Collection Lines	5,215,000	1,865,000	790,668	10,000	19,574	11,755,495	601
Pumping	7,700,000	2,740,000	1,161,625	15,672	19,574	8,861,625	565
Total Wastewater	12,915,000	4,605,000	1,952,293	N/A	19,574	20,617,120	1,166
Total Westside Area	**$67,850,000**	**$24,170,000**	**$10,246,889**	**N/A**	**19,574**	**$46,166,191**	**$2,471**
Eastside							
Water							
Treatment	$42,370,000	$15,070,000	$6,388,937	18,895	24,904	64,264,099	2,580
Reservoirs	18,250,000	6,495,000	2,753,560	18,895	24,904	27,682,614	1,112
Pumping	1,200,000	430,000	182,299	4,360	24,904	7,894,747	317
Distribution Lines	39,400,000	14,020,000	5,943,789	97,820	24,904	11,544,106	464
Total Water	101,220,000	36,015,000	15,268,585	N/A	24,904	111,385,567	4,473
Wastewater							
Treatment	64,000,000	22,760,000	9,649,118	43,988	24,904	41,696,517	1,674
Collection Lines	27,550,000	9,800,000	4,154,717	51,855	24,904	15,226,579	611
Pumping	0	0	0	0	24,904	0	0
Total Wastewater	91,550,000	32,560,000	13,803,835	N/A	24,904	56,923,096	2,286
Total Eastside Area	**$192,770,000**	**$68,575,000**	**$29,072,421**	**N/A**	**24,904**	**$168,308,663**	**$6,758**
Systemwide							
Water	$231,475,000	$82,385,000	$34,927,180		66,139	$211,386,182	$3,186
Wastewater	141,585,000	50,370,000	21,354,398		66,139	105,069,223	$1,552
Systemwide Area	**$373,060,000**	**$132,755,000**	**$56,281,578**		**66,139**	**$316,455,404**	**$4,738**

Attachment G Impact Fee Credit Calculation

ATTACHMENT G
Water and Wastewater Impact Fee Study
Impact Fee Credit Calculation

Systemwide Water Credit Calculation

Line No.		Total (All Years)	FY 2019-20	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25	FY 2025-26	FY 2026-27	FY 2027-28	FY 2028-29
1	Principal Payments	$82,385,000	$2,491,536	$2,616,112	$2,746,918	$2,884,264	$3,028,477	$3,179,901	$3,338,896	$3,505,841	$3,681,133	$3,865,189
2	Annual Interest on Future Debt		4,119,250	3,994,673	3,863,868	3,726,522	3,582,309	3,430,885	3,271,890	3,104,945	2,929,653	2,745,596
3	Total Debt Service		$6,610,786	$6,610,786	$6,610,786	$6,610,786	$6,610,786	$6,610,786	$6,610,786	$6,610,786	$6,610,786	$6,610,786
	Present Value											
4	Principal on Future Debt		$2,372,891	$2,372,891	$2,372,891	$2,372,891	$2,372,891	$2,372,891	$2,372,891	$2,372,891	$2,372,891	$2,372,891
2	Interest Payments (present value)	34,927,180	3,923,095	3,623,286	3,337,754	3,065,819	2,806,832	2,560,179	2,325,271	2,101,549	1,888,480	1,685,558
3	Principal and Present Value of Interest	$117,312,180	$6,414,631	$6,239,399	$6,084,672	$5,950,082	$5,835,309	$5,740,080	$5,664,167	$5,607,390	$5,569,613	$5,550,747
4	Beginning Year Service Units		238,709	245,347	251,985	258,623	265,261	271,900	278,538	285,176	291,814	298,452
5	Incremental Service Units		6,638	6,638	6,638	6,638	6,638	6,638	6,638	6,638	6,638	6,638
6	Total Service Units		245,347	251,985	258,623	265,261	271,900	278,538	285,176	291,814	298,452	305,090
7	Debt Service Credit per Unit	**$407**	$26	$25	$24	$22	$21	$21	$20	$19	$19	$18

Notes:
1. Present value calculations apply a 5 percent discount rate.

ATTACHMENT G
Water and Wastewater Impact Fee Study
Impact Fee Credit Calculation

Systemwide Water Credit Calculation

Line No.		FY 2029-30	FY 2030-31	FY 2031-32	FY 2032-33	FY 2033-34	FY 2034-35	FY 2035-36	FY 2036-37	FY 2037-38	FY 2038-39
1	Principal Payments	$4,058,449	$4,261,371	$4,474,440	$4,698,162	$4,933,070	$5,179,723	$5,438,710	$5,710,645	$5,996,177	$6,295,986
2	Annual Interest on Future Debt	2,552,337	2,349,414	2,136,346	1,912,624	1,677,716	1,431,062	1,172,076	900,140	614,608	314,799
3	Total Debt Service	$6,610,786	$6,610,786	$6,610,786	$6,610,786	$6,610,786	$6,610,786	$6,610,786	$6,610,786	$6,610,786	$6,610,786
	Present Value										
4	Principal on Future Debt	$2,372,891	$2,372,891	$2,372,891	$2,372,891	$2,372,891	$2,372,891	$2,372,891	$2,372,891	$2,372,891	$2,372,891
2	Interest Payments (present value)	1,492,298	1,308,242	1,132,950	966,005	807,010	655,586	511,373	374,027	243,221	118,645
3	Principal and Present Value of Interest	$5,550,747	$5,569,613	$5,607,390	$5,664,167	$5,740,080	$5,835,309	$5,950,082	$6,084,672	$6,239,399	$6,414,631
4	Beginning Year Service Units	305,090	305,090	305,090	305,090	305,090	305,090	305,090	305,090	305,090	305,090
5	Incremental Service Units	0	0	0	0	0	0	0	0	0	0
6	Total Service Units	305,090	305,090	305,090	305,090	305,090	305,090	305,090	305,090	305,090	305,090
7	Debt Service Credit per Unit	$18	$18	$18	$19	$19	$19	$20	$20	$20	$21

Notes:
1. Present value calculations apply a 5 percent discount rate.

ATTACHMENT G (continued)
Water and Wastewater Impact Fee Study
Impact Fee Credit Calculation

Systemwide Wastewater Credit Calculation

Line No.		Total (All Years)	FY 2019-20	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25	FY 2025-26	FY 2026-27	FY 2027-28	FY 2028-29
1	Principal Payments	$50,370,000	$1,523,319	$1,599,485	$1,679,459	$1,763,432	$1,851,604	$1,944,184	$2,041,393	$2,143,463	$2,250,636	$2,363,168
5	Interest Payments (present value)	$21,354,398	2,398,571	2,215,269	2,040,695	1,874,434	1,716,091	1,565,288	1,421,665	1,284,882	1,154,613	1,030,546
6	Principal and Present Value of Interest	$71,724,398	$3,921,891	$3,814,754	$3,720,155	$3,637,867	$3,567,695	$3,509,472	$3,463,059	$3,428,345	$3,405,249	$3,393,714
7	Beginning Year Service Units		222,608	229,222	235,836	242,450	249,064	255,678	262,291	268,905	275,519	282,133
8	Incremental Service Units		6,614	6,614	6,614	6,614	6,614	6,614	6,614	6,614	6,614	6,614
9	Total Service Units		229,222	235,836	242,450	249,064	255,678	262,291	268,905	275,519	282,133	288,747
10	Debt Service Credit per Unit	**$264**	$17	$16	$15	$15	$14	$13	$13	$12	$12	$12

Notes:
1. Present value calculations apply a 5 percent discount rate.

ATTACHMENT G (continued)
Water and Wastewater Impact Fee Study
Impact Fee Credit Calculation

Systemwide Wastewater Credit Calculation

Line No.		FY 2029-30	FY 2030-31	FY 2031-32	FY 2032-33	FY 2033-34	FY 2034-35	FY 2035-36	FY 2036-37	FY 2037-38	FY 2038-39
1	Principal Payments	$2,481,326	$2,605,393	$2,735,662	$2,872,445	$3,016,068	$3,166,871	$3,325,215	$3,491,475	$3,666,049	$3,849,352
5	Interest Payments (present value)	912,388	799,856	692,683	590,613	493,404	400,824	312,652	228,679	148,705	72,539
6	Principal and Present Value of Interest	$3,393,714	$3,405,249	$3,428,345	$3,463,059	$3,509,472	$3,567,695	$3,637,867	$3,720,155	$3,814,754	$3,921,891
7	Beginning Year Service Units	288,747	288,747	288,747	288,747	288,747	288,747	288,747	288,747	288,747	288,747
8	Incremental Service Units	0	0	0	0	0	0	0	0	0	0
9	Total Service Units	288,747	288,747	288,747	288,747	288,747	288,747	288,747	288,747	288,747	288,747
10	Debt Service Credit per Unit	$12	$12	$12	$12	$12	$12	$13	$13	$13	$14

Notes:
1. Present value calculations apply a 5 percent discount rate.

ATTACHMENT H
Water and Wastewater Impact Fee Study
Impact Fee Assessment Schedules (Net Fee after Credit)

Northeast

Meter Size	Meter Capacity Ratio	Water	Wastewater	Total
Less than 1-inch	1.00	$2,998	$1,055	$4,053
1-inch	1.67	5,007	1,762	6,769
1½-inch	3.33	9,983	3,513	13,496
2-inch	5.33	15,979	5,623	21,602
3-inch	10.00	29,980	10,550	40,530
4-inch	16.67	49,977	17,587	67,564
6-inch	33.33	99,923	35,163	135,086
8-inch	53.33	159,883	56,263	216,146

Westside

Meter Size	Meter Capacity Ratio	Water	Wastewater	Total
Less than 1-inch	1.00	$1,109	$771	$1,880
1-inch	1.67	1,852	1,288	3,140
1½-inch	3.33	3,693	2,567	6,260
2-inch	5.33	5,911	4,109	10,020
3-inch	10.00	11,090	7,710	18,800
4-inch	16.67	18,487	12,853	31,340
6-inch	33.33	36,963	25,697	62,660
8-inch	53.33	59,143	41,117	100,260

Eastside

Meter Size	Meter Capacity Ratio	Water	Wastewater	Total
Less than 1-inch	1.00	$3,901	$1,897	$5,798
1-inch	1.67	6,515	3,168	9,683
1½-inch	3.33	12,990	6,317	19,307
2-inch	5.33	20,792	10,111	30,903
3-inch	10.00	39,010	18,970	57,980
4-inch	16.67	65,030	31,623	96,653
6-inch	33.33	130,020	63,227	193,247
8-inch	53.33	208,040	101,167	309,207